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Lecture.

HYSTERIA—APPLICATIONS OF STATIC ELECTRICITY IN ITS TREATMENT.

Delivered at the Salpetrière,

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Translated for the Medical and Surgical Reporter.

Gentlemen—I will confine myself in this, my last clinical lecture of this year (1881), to the consideration of a new subject, which is yet, as regards certain points, unsettled.

I refer to the applications made of static electricity in the treatment of diseases of the nervous system, particularly of hysteria. When hysteria is spoken of, or under discussion, there are many physicians yet, who, without any very evident reason, do not wish to listen, or take the subject into consideration, regarding the most conclusive arguments as without weight.

Some are willing to admit the existence of hysteria, but consider it a veritable protean malady; its evolution following laws so complex that it becomes impossible to submit them to analysis. Again, that the phenomena are so mobile, so changeable, that they cannot be reduced to any methodic description. These physicians would voluntarily ascribe to this affection almost all clinical phenomena which cannot be submitted to any recognized rule.

Other physicians, more radical, deny the existence of hysteria as a malady. They consider that all is but simulation and deception in the phenomena which characterize it. For them, a physician should be very careful how he meddles with such patients, or his professional dignity will be compromised. Thus, with a stroke of the pen, one good quarter of the nervous pathology of women is suppressed.

But I will demonstrate to you the reality of these phenomena, and though the tendency of hysterical patients to deceive cannot be denied, I will prove to you that hysteria is truly a separate malady, with greater mobility and with more variety in its manifestations than other maladies, but in which nothing happens through chance, everything occurring in conformity with certain rules, which may, notwithstanding the complexity of the phenomena, be determined by the observer if a certain method be employed.

This method is the following: proceed slowly and carefully in this domain, so difficult of access, and do not attempt to understand all immediately. Consider at first the more simple phenomena, those more easily understood, the most palpable in effect; some of these will be found analogous to symptoms observed in other maladies of the nervous system quite different from hysteria. But this is not all; the same observation must be many times repeated, with different subjects and under different conditions; the hospital observations must be placed in contrast with those seen in private practice. The more complex phenomena should be regarded with great circumspection, and those which seem to have no sensible connection with established pathological facts should not, for the moment, be taken into consideration.

I will first demonstrate practically certain methods by which the reality of the facts observed may be rendered manifest, although at first glance they may appear strange. This con-

cerns certain phenomena observed while the patients are in the hypnotized condition, into which state hysterical patients may be plunged with facility.

The different methods by which patients are (often with great facility) placed in the hypnotized state, are well known; by a monotonous and prolonged impression, such as that which results from steadily regarding an object with the eyes in convergence, or a sudden and startling impression, as that produced by the sudden beating of a gong or a flash of electric light. (See Bourneville et Regnard, "Iconographie Photographique de la Salpetrière," T. iii.)

If a patient is thus artificially put to sleep, two different conditions may be observed: if the eyes are closed, so as to prevent the impression of the light on the retina, the patient is plunged into the hypnotic state, which might also be called "sleep with muscular hyper-excitability."

In this state, in effect, it suffices to touch a muscle, to compress a nervous trunk, in order to produce contractions in the muscle or groups of muscles under the dependence of the nerve.

But, if the eyes are open, so that the retina may receive the impression of light, the patient falls into the cataleptic state. In this condition the muscles are soft and pliant, but are incapable of contraction under the influence of excitation.

But the two states may exist conjointly in the same patient; to bring this about one eye should be uncovered while the other remains closed. Under these conditions the muscles on the side corresponding to the open eye are hyper-excitable, while on the other side the series of phenomena which characterize the cataleptic state are observed.

This fact of muscular hyper-excitability is the most potent to confirm conviction in the minds of those physicians who consider that all which relates to hysteria is simulation.

And, in effect, if it be true that the motor nerves and the muscles are excited in the hypnotized patient by simply touching them, effects should be produced on any patient, though completely ignorant of anatomy and physiology, anlogous to those discovered by Duchenne, of Boulogne, in his remarkable researches on localized electrization.

If, on the contrary, the patient were not really hypnotized, but was able and desired to deceive, the simulation would very soon be recognized. The patient being completely ignorant of anatomy and physiology, the motion and contractions would be dictated by her caprice, and would not in the least be in conformity with known anatomical facts.

Or, such is not the case, if, as M. Charcot demonstrated in his lecture, the results of faradization of the different muscles and nerves be compared with those induced by simple excitation of the same muscles and nerves in the hypnotized hysterical patient; they will be found to be identical. And this fact is so well proven that the action of muscles and groups of muscles under the two methods of excitation have been reproduced by means of photography and the identity of the effects rendered still more evident.

This fact holds equally good for the muscles of the face, of the upper or of the lower limbs, in well marked cases: the results obtained by one and the other method are the same, and the hypnotized patient realizes, with a precision and exactitude which at first causes astonishment, the ensemble of movements commanded by the excited muscles. If, notwithstanding all these proofs, simulation should be thought of, it would be necessary to suppose the patient had a profound knowledge (much more extensive than that possessed by most physicians) of the anatomy and physiology of muscles, and a species of infallibility which would enable him, though taken completely by surprise, never to make a mistake regarding the action of a muscle or the anatomical distribution of a nerve; we have no necessity to establish the absurdity of such a hypothesis.

Before taking up the history of the effects of static electricity, we should consider the results obtained through means of the medicaments I have termed æsthesiogènes. This is a series of therapeutic agents by means of which, as the expression indicates, sensibility or common sensation may be brought back to parts whence it has disappeared, in hysterical patients particularly, but also in persons with cerebral lesions.

To M. Burq, is incontestably due the merit of having opened the way to this order of researches, in demonstrating certain properties of metallic plates. But since the works of Burq, and, particularly, through researches made at the Salpetrière, this subject has been enriched by many additional facts.

Among æsthesiogenetic agents, the magnet occupies an important place between the metals and static electricity. The action of the magnet is well known to day, and has been popularized through the works from the Salpetrière (Charcot, Regnard, Vigoroux). The objections urged against the effects obtained by the magnet are of

two orders: first, it has been advanced, and without any proof, that the observers, under the influence of an illusion, were deceived by the patients. But soon the observations became numerous, and were verified by many scientists; the magnet was shown to be efficacious, not only against the hemianæsthesia of hysterical patients, but also against certain forms of hemianæsthesia due to organic lesion, or against those of toxic origin.

It was then that the idea of "expectant attention" was invoked to explain the phenomena which they persisted in not attributing to the magnet. Attention, being, they say, fixed with force, and without intermission, on one part of the body, either the circulation or the innervation of this part of the body, or both at once, become affected. Naturally these effects are much more marked if there is hope of any determined result being obtained. Or, they say, it is through this strong tension of the mind, to the "expectant attention," in a word, that the return of sensation into the part experimented on is to be attributed.

This new objection has been often replied to, and shown to offer no more resistance to serious examination than the preceding one. As proof, I will cite the following experiments, chosen from among many others:—

1st. A false magnet, resembling exactly, as regards form, volume and weight, the true magnets usually employed, will have no effect if placed to the affected side; sensibility will not reappear. Nevertheless, in this case, does not the pretended "expectant attention" exist, just as when recourse is had to a veritable magnet?

2d. Zamboni's electric pile brings back frequently, like the magnet, sensibility to the part whence it has disappeared; while with a false pile, exactly resembling the other exteriorly, no result is obtained.

3d. Finally, if a solenoid is made use of, through which the current obtained from the pile may be passed or interrupted without the knowledge of the patient, it will be found that the anæsthesia disappears when the solenoid is traversed by the current, while there is no change when it is not placed in relation with the pile.

All these facts and experiments, repeated hundreds of times, by numerous observers, on many diverse patients, form a peremptory refutation to oppose to those physicians who still obstinately deny the evidence.

We will now proceed to consider the subject which is principally the object of this lecture—the effects of static electricity. It will be useful to determine with precision the characters of static electricity, and to demonstrate in what it differs from the two other modes of electricity, the faradic and galvanic. Electricity is always one and the same, whatever the generator which produces it; it presents itself with two essential attributes: 1st, quantity; 2d, tension. But according to the generating apparatus put in use, sometimes the quantity predominates, sometimes the tension. At this point of view the different forms of apparatus for generating electricity may be considered in three groups: 1st, the apparatus which furnish electricity in a high state of tension, but in feeble quantity; the ordinary electric machine is the type of this form of apparatus which furnish static electricity; 2d the apparatus which produce electricity of feeble tension but in large quantity, such as the pile; 3d, finally, the electro-magnetic or induction apparatus (faradic apparatus) which constitute a link of transition between both, for the tension and quantity are both relatively considerable.

Electricity furnished by the pile produces very different effects from that of the machine. (*a*) The gold leaves of the electroscope diverge widely at the approach of a machine producing static electricity, and rest in contact with each other when the current obtained from the pile is passed through the apparatus. (*b*) Water, on the contrary, is decomposed by the galvanic current, while electricity of tension has no effect on it. (*c*) Iron wire becomes incandescent when traversed by a continuous current of sufficient power, while static electricity has no effect. (*d*) Finally, the static machine gives rise to sparks, which the pile does not produce.

This divergency in the physical effects of the different modes of electricity would lead to the supposition that there existed corresponding differences in the physiological and therapeutic effects.

It is known, for instance, as regards physiological action, that a faradic current does not act on a muscle at a certain moment after the section of the nerve, while under these conditions the action of the galvanic current is more energetic than in the normal state.

On the other hand, the application to the tongue of one of the electrodes of the pile gives rise to a metallic taste, which is not produced by the electric spark. Thus, at a physical and physiological point of view, each mode of electricity has effects proper to itself; and the same is true as concerns therapeutic effects.

Therapeutically, in effect, static electricity has

its separate place beside faradic and galvanic electricity, just as it has its special characters and effects, physically and physiologically.

Static electricity has latterly attracted little attention as a therapeutic agent, since the experiences undertaken by Manduyt in 1875. Duchenne, Remak, Benedikt, and Onimus, attached little importance to this form of electricity, which M. Vigoroux has recently sought to introduce into practice.

The machines formerly used, that of Ramsden notably, have too feeble a tension, and are with difficulty kept in order; while the tension in the machine of Holtz is too strong; the machine recently brought forward by Carré, particularly with the modifications made by Vigoroux, presents an incontestable superiority over the preceding ones.

This machine is enclosed under a glass receiver, which permits, with the aid of certain substances having great affinity for moisture, chloride of calcium, for instance, the maintenance of the machine in a sufficiently dry atmosphere, so that it may be put in use at any moment; when a motor like that of Bishop is added to the machine it may be put in action without the assistance of an aid, and can be used for several hours in succession.

Finally, M. Vigoroux, making use of several isolated stools placed in relation with the machine, has been able to place five or six patients at a time under the electric influence.

Through the means of this perfected apparatus, daily in use at the Salpetrière, static electricity, heretofore of difficult application, has been reduced to practical use. The patients, placed on the isolated stool and in relation with the machine, are plunged, as it were, into a veritable electric bath, or rather, to be more exact, an electro-static bath. They are placed on the course of an electric conductor, and representing simply a prolongation of one of the poles of the machine, they must be influenced by the electric state of the conductor. The other pole is pro longed to the earth, and the two prolongations are separated by the layer of air interposed between the ground and the stool.

In this species of electric bath the electricity is not in repose; there is constant destruction and renewal. as attested by a Lane's electrometer placed near the stool. The electric fluid escapes from all points of the surface of the patient, particularly from the hair, the ends of the fingers, etc. From this results a feeling of irritation all over the cutaneous surface. And again certain important physiological effects are remarked; the cutaneous perspiration is augmented, the digestion rendered more active, the station on the electric stool communicating frequently a decided sensation of hunger.

With the aid of excitators (excitateurs) the discharge which takes place slowly and continuously from the patient's body may be localized. The excitators most commonly put in use are rods of wood or metal, provided with isolating handles and in communication with the ground by means of a chain. These instruments are pointed or terminate in a bulb, according to the effects it is desired to produce. Special forms, even, have been constructed for the electrization of the eye, the ear, the muscles.

If the excitator is placed at a distance of fifteen or twenty centimeters from the cutaneous surface, the patient has the sensation of a current of fresh or heated air; it is what might be termed the electric wind.

At a distance of six or eight centimeters the sensation is more acute, and has a character of irritation; there is a pricking sensation at the part. At the same time, from the extremity of the excitator there proceeds a bunch of luminous rays which spreads as it reaches the body (c'est l'aigrette). Finally, if the excitator, preferably with the bulb termination, is brought still nearer the cutaneous surface, the electric spark is obtained and provokes, at the moment it is disengaged, a sudden movement of the limb, with a painful sensation at the point nearest the bulb. Operating over the naked surface, a brusque contraction is often observed in the muscle, directly under the point where the spark was emitted.

Localized muscular electrization may be thus effected, and in certain cases of paralysis of spinal origin certain muscles which did not react under the influence of faradic electricity contracted under the electric spark.

It may be seen, from what we have observed, that through means of this machine the patient may be simply placed in a sort of electric bath, or may be brought, by using excitators, under the influence of the electric spark, etc.

The first patient I will present has a hysterical contracture of the left forearm, with flexion of the fingers of the hand and of the forearm. This patient was formerly cured, when similarly affected, by applications of the magnet, but after two years the contracture reappeared, and is much more tenacious than formerly.

Placing the patient on one of the isolating stools, by means of the electric wind (that is through the near approach of an excitator),

artificial contracture is soon brought about in the right arm. There is no actual transfer of the contracture from left to right, as happened formerly, when the magnet was applied; there is simply a slight relaxation of the muscles of the contracted left arm, while the contracture is produced in the right arm. Although the effects obtained up to the present in this case are not very conclusive, there is every reason to believe that in the end an artificial state of contracture will be brought about in the right arm, and the spontaneous contracture in the left cured, as it was two years since, by the magnet.

I present to you, also, three hysteric subjects; in two there is hemianæsthesia, in the third complete anæsthesia.

When these patients are placed in what we have termed the electric bath, little by little the following effects are produced: if anæsthesia is complete or total, after a few minutes the anæsthesia becomes more marked on the side where it habitually predominates (it is well known that even where there is anæsthesia of both sides, it predominates always on one side); sensibility reappears, on the contrary, on the side where anæsthesia is usually least marked; then, after a few instants, anæsthesia changes from one side to the other (transfert), and, finally, after twenty, twenty five, thirty minutes, sensation has returned over the whole body, special sense as well as common sensation. If there existed, primarily, hemianæsthesia, there is, as in the other case, transfer and finally complete return of sensibility.

A hysterical patient who has thus recovered sensibility retains it for several hours and even several days; for that matter, by repeating each day the seances of electrization, things may be maintained in this state.

It is not without utility to thus induce a return of sensibility in a hysteric patient, for experience has demonstrated that these patients are in reality, for the moment, cured, while they are no longer in a state of anæsthesia; for instance, they can no longer be placed in the hypnotic condition, and often the excitation of certain parts which usually in them bring on the hysteric attack no longer produce that effect.

These facts would suffice to render legitimate the efforts to restore static electricity to a place in therapeutics.

And it is not in hysteria alone that static electricity has given results.

Certain cases of facial paralysis, of peripheric origin, have been cured by this process, which would appear destined to render real service in cases of paralysis difficult to treat by electrization and galvanization, on account of the imminence of contracture. In shaking palsy (paralysie agitante), interesting effects have been obtained. The shaking is immediately arrested in those parts of the body on which the electric spark is directed, and although there can be no hope of actual cure, the malady has, in several cases, been happily influenced by this practice.

Certain nervous troubles, spinal irritations, dyspepsias and dysmenorrhœas of nervous origin, which had proven rebellious to various modes of treatment, have been also ameliorated by the aid of static electricity.

It can, then, be seen that this is a therapeutic agent of great value, and although there are many researches yet to be made regarding it, it is evident that it merits being withdrawn from the obscurity to which it appears to have been systematically relegated.

COMMUNICATIONS.

FOUR CASES OF TUBERCULAR MENINGITIS.

BY CHARLES K. MILLS, M.D., AND LAMBERT OTT, M.D.

Read before the Northern Medical Association of Philadelphia.

The cases here reported occurred in the practice of Drs. M. Franklin and L. Ott, and were seen by Dr. Mills in consultation. The autopsies were made conjointly by Drs. Franklin, Ott and Mills, and the microscopical examinations by Dr. L. B. Hall.

CASE 1.—G., female, five years of age, had a good family history, her parents being quite healthy, and her grandparents having reached a good old age; no consumption had ever been known in the family. The child had never been as bright and active as other children of her age; she seemed to like solitude. For two weeks she had been peevish and fretful; not playing, refusing to eat, and appearing unconcerned when addressed. Her parents noticed a tendency to unnatural drowsiness. She was brought to Dr. Franklin's office, and while there went to sleep, at the same time vomiting. On the way home, however, she walked as well as a healthy child. The next day she was seen at home; she did not stir when approached, but opened her eyes, stared and relapsed into a drowsy state. Her pulse was 96, irregular and soft; temperature 98.1°. Respirations were 27, and presented striking irregularities, the *irregularities* occurring in

nearly *regular* order. Two to four sighs took place in the course of a minute. A very long sigh would be drawn, followed by a cessation of respiration, lasting usually from ten to fifteen seconds, sometimes being shorter. Short and rapid breathing then occurred, increasing in length with each inspiration until it reached about a normal rate, continuing at this for three or four respirations, when there would be another sigh, and then another pause. This would be again followed by scarcely perceptible breathing, but gradually increasing as before. This peculiar "ascending" respiration did not follow every sigh. Supposing that four sighs occurred in the minute, two or three would be followed by the hiatus and gradually increasing respiration, while the other one or two, much shorter, would be followed by ordinary respiration. Lifting the child, pricking her with a pin, or otherwise irritating her, would disturb the peculiar irregular rhythm of the respiration. When touched or moved she cried out vehemently, at the same time manifesting great irritability, but as soon as the disturbance ceased she immediately fell asleep. When irritated her face became intensely flushed. *Tache cerebrale* was well marked, the red streak coming slowly when the finger was drawn over the surface, and then gradually fading. The pupils were dilated, responding feebly to light. The skin was dry and scaly, the extremities were cold. The urine was passed in bed; the bowels were constipated. The belly was not retracted. She was considerably emaciated. Physical examination of the lungs showed dullness over the left apex, with harsh respiration. On the day on which these notes were made, about the fourteenth since anything wrong had been observed, she had a slight spasm.

15th day. Her pulse was 96, rectal temperature 97°, respirations 20. At every fifth or seventh respiration was a sigh. The pupils were unequally dilated. She was continually drowsy, half awaking now and then, and staring vacantly. She threw off all covering day and night, seeming to wish to be naked. The abdomen was beginning to be retracted. Her bowels were opened, the passage being hard. The extremities were warmer than on the previous day. She was given a piece of solid food, a favorite dish, which she bit eagerly and chewed a few seconds, and then fell off to sleep with the bolus in her mouth. She was much more irritable than on the previous days. When both thighs were seized and the femur squeezed, she would give a piercing scream. This was a striking peculiarity. Compressing other parts of the extremities did not elicit any cry.

On the 16th day her condition was very much the same as on the previous day; pulse 84, temperature 98.6° respirations 24. On auscultating the chest a peculiar alteration in the normal condition of the respiratory sounds was observed. Sometimes for three or four respirations the inspiratory sound would be prolonged much beyond the expiratory, and this was followed alternately by a prolonged expiratory sound. The end of the stethoscope left a white ring with a red centre, and shortly after removing it, the entire ring would become red. The face had a permanent flush, which was aggravated when the child was disturbed. The abdomen was much retracted.

On the 17th day the pulse was 124, temperature 99.2°, respirations 20. The inspiratory sound was much prolonged. She could not stand unsupported. The nose and left cheek showed a bright flush; the left side and extremity were deeply flushed.

18th day. Pulse 120, temperature 99.5, respirations 24. Her condition about the same, only the skin was quite dry.

19th day. Pulse 118, temperature 97.2°, respirations 24. She had an involuntary passage from the bowels, in bed. The muscles of the back and neck were stiff, with a little inclination to opisthotonos. The knee joint was very stiff; other joints were normal. The eyelids twitched convulsively. She was still very stupid, lying quiet, with an expressionless countenance, but showing great irritability, with an instantaneous flush of the face, when disturbed. Her cough continued to increase. When the femurs were compressed she quickly thrust out her hand to resent the annoyance, crying, as if in pain. The same handling of other parts of the extremities gave apparently no pain.

No notes were made on the 20th day.

21st day. Pulse 128, temperature 99°, respirations 24. The abdomen was much retracted. When a rapid motion was made toward the open eyes she rapidly closed them, as if in dread of a blow.

22d day. Pulse 134, temperature 99°, respirations 40. The respirations still showed the irregularities already described.

23d day. Pulse 120, temperature 97.5°, respirations 16. She snored considerably. While watching her, the face suddenly became intensely flushed, without any external disturbance. She had ptosis of the left upper lid, and partial closure of the right upper lid during sleep. Loss of

power in the right arm and leg became manifest. Sensation seemed in no way altered. Examination of the urine showed that neither albumen nor sugar were present.

24th day. Pulse 128, temperature 98°, respirations 24.

25th day. Pulse 125, temperature 98°, respirations 28. A swollen, tympanitic belly was taking the place of the retracted abdomen.

26th day. Pulse 144, temperature 99.7°, respirations 40.

27th day. Pulse 160, temperature 98.8°, respirations 20. She threw her head back with every inspiration, at the same time opening her mouth as if unable to obtain sufficient breath. Every few minutes the face would suddenly become flushed and would so remain for about three minutes.

On the 28th day she died, while trying to take a little milk, which she was unable to swallow.

Autopsy.—The central base from optic chiasm to medulla oblongata, showed advanced purulent exudation, involving the optic nerves and tracks, and the third and fourth nerves. The latter nerves, particularly on the left side, were bound down. Tubercles were found along the vessels far out in the Sylvian fissures. A few miliary tubercles were found in the velum interpositum. A large amount of fluid was found in the ventricles.

Case 2.—Male infant, ten months old. The father had died of lung disease of a few months' duration. The babe had thrived well on artificial nourishment until three weeks before he came under medical care, when he was taken with vomiting and purging, passing blood and mucus; this lasted two days, and he was afterward cross and peevish. When first examined he had slight cough, was irritable, continually moaning, not satisfied in any position. He had great thirst. His bowels were opened twice daily. Saliva dribbled from his mouth. His physiognomy presented a peculiarity, as follows: the longitudinal and transverse wrinkles of the face successively appeared and disappeared, the eyelids opening and closing, at the same time throwing his head back every few moments, as if in a fit of anger. The temperature was 102°. His condition remained nearly the same for about a week. About two and a half weeks from the beginning of the illness he fell into a stupor, only awaking to take a little milk when placed in his mouth, and then showing great irritability.

On the nineteenth day his pulse was 140, temperature 102°, respirations 40. His skin was very dry. He moaned a great deal during sleep, and when disturbed manifested extreme irritability.

On the twentieth day he was still sleeping, and when awakened stared with a frightened expression. He was usually quite pale, but sometimes a flush would suddenly appear. His abdomen was beginning to be a little retracted. Several times during the day he perspired considerably. His bowels were opened three times. Pulse was 120, temperature 102°, respirations varied from 10 to 20 per minute. On watching the breathing, and judging merely by sight, it was noticed that two short respirations occurred, then a sigh followed by a pause, or, at least, no perceptible movement, for from twenty to twenty-five seconds; after this came two rapid respirations. On pressing the hand deeply into the abdomen, however, during this apparent pause of twenty-five seconds, rapid and shallow breathing was discovered.

On the 21st day the pupils were sensitive to light. The bowels were opened once. The neck and back were quite rigid, inclining to opisthotonos. The retraction of the abdomen was increasing. Tache cerebrale was manifest.

22d day. Flushes occurred much oftener during the evening. He perspired profusely. He whined when much pressure was exerted on the thigh. Pulse 120, temperature 101.2°, respirations 56.

23d day. A peculiar odor was given off by the patient, like that of the perverted secretions of cutaneous glands. Washing did not cause the odor to disappear. The patient screamed suddenly at intervals, and had convulsive twitchings of the hands and feet, lasting for an hour. The eyelids also twitched at times. The pulse was fluttering and could not be counted. Temperature 103°; respirations 48.

24th day. For twenty minutes at a time he tossed his head from side to side, and then remained quiet for about the same period, when the movements recurred. He had now also rapid oscillations of the eye, with contracted pupils. Sensibility was abolished in the left arm and both lower extremities. Temperature 107°; respirations 64, regular and labored. He died on the evening of the 24th day.

Autopsy.—The anterior fontanelle was very little closed, considering the patient's age. The dura mater of the convexity was adherent to the skull. The tentorium, on its cerebellar aspect, showed some redness and exudation. The pia mater of the under surface of the temporo-sphenoidal lobes was hyperæmic. The pia mater covering

the orbital surfaces of the frontal lobes was somewhat opaque, and showed numerous miliary tubercles, more on the left than on the right side. The membrane covering the entire central portion of the base, from a point one-half inch in front of the optic chiasm backward to the pons, was milky white and thickened. The chiasm was bound down with exudation. The Sylvian fissures were glued together, exudations and deposits being found along the Sylvian vessels. Scattered tubercles were found over the pia mater of the convexity of both frontal lobes. The posterior horns of the ventricles were much dilated.

Microscopical Examination by Dr. Hall.—The membranes were thickened by an increase of fibrous tissue. There was an infiltration of rounded cells, chiefly along the vessels, forming a wedge-shaped ring on the small arterioles, where they dip into the cortex. On the vessels of the pia mater they formed oval-shaped masses not encroaching on the calibre of the tube. These, as well as the thickened membrane, took the stain more readily than the rest, showing their active condition.

Case 3.—M., male, aged two years and six months, had always enjoyed good general health, but had passed through a severe attack of summer complaint four months previous to coming under observation. His father died of consumption. Nine days before he was first seen professionally he was attacked with apparently causeless vomiting, with some diarrhœa, fever and general irritability. The next day the mother noticed that the child had a fixed and staring expression. He remained restless, irritable and out of sorts, but without any change of note in his condition for seven days, when one of us was called in to see him. His eyes were fixed and staring. It was impossible to attract his attention. Even screaming in his ears had no effect. His pulse was 180, temperature 101.4°, respirations 30. Respiration was irregular and peculiar; five to six regular breathings would be succeeded by a sigh, and this would be followed by a pause of fifteen to twenty seconds. Faint respiratory movements could not be detected when the hand was pressed deeply into the abdomen. After the pause, a few rapid, short respirations—but each increasing in length—were taken, until easy, regular breathing was reached. This would be followed again by sigh, pause, and ascending respiration. The left pupil was dilated. He had a cough, apparently due to bronchial catarrh. The abdomen was a little flaccid and somewhat retracted.

We will not give the record of daily observations in this case, the condition not changing much, and not differing markedly from that noted in other cases.

The following notes were made on the 20th day: pulse 160, soft and irregular; temperature 104.2°; respirations 68, labored and different from preceding days. He would have five rapid and lengthy inspirations, with an expiratory moan; then ten rapid, short and nearly imperceptible inspirations, not attended with the expiratory moan; these would again be followed by the lengthy inspirations and expiratory moan. The pupils were equal, the eyes staring, and lids still wide open. The nostrils were constantly dilating. Mucous râles were present in the chest, but percussion showed no dullness. The cheeks were flushed. Tache cerebrale was quite marked. He swallowed with difficulty. The skin was moist. The tongue was coated, white and dry. The bowels were constipated, urine passed in bed. Tightly grasping the thighs did not seem to cause pain. The extremities were in a state of tonic spasm, now and then alternating with clonic spasms. The patient died on the 21st day of the disease.

Autopsy.—The pia mater over both orbital regions was deeply congested. Thickening of the membrane and purulent exudation were present over wide-spread regions of the base of the brain. Beginning one-half inch in front of the optic commissure the exudation extended out along both Sylvian fissures—on the left as far as the ascending convolutions, on the right for a distance of about one inch; it was present over the anterior ends of both temporo sphenoidal lobes, and over the central portion of the base from the optic commissure to the pons. The olfactory, optic, and oculo-motor nerves were slightly bound down. Over the anterior arachnoid space the membrane was of a deep red, but less opaque than in the other regions described. The pia mater over the posterior part of the first frontal convolution of the right side was slightly opaque and thickened. The ventricles were filled with fluid.

Microscopical Examination by Dr. Hall.—Thickened membrane and infiltration of rounded cells along the vessels were found here also, the membrane and the masses formed taking the stain more readily than other parts.

Case 4.—J. H., male, aged 6 years. The family had a tubercular history, and one patient died of brain trouble.

For two weeks the boy had been vomiting before breakfast, and had been complaining of pain

in the abdominal region. He did not wish to go to school, and when compelled to do so by his parents, returned feeling quite sick. One morning Dr. Ott happened in the house, non-professionally, and saw him, lively and looking well. Shortly afterward the patient went out with his sled, and after being out twenty minutes his companions noticed that he had a peculiar stiff appearance. Calling to him and receiving no response, they took hold of him and found him quite rigid. He was carried home. He was quite insensible. He was placed in a warm bath and cold was applied to his head, but without effect.

One hour after the beginning of the seizure he presented the following condition: his eyes were staring, now and then slowly oscillating, the pupils were dilated, the lids were twitching. The muscles of the mouth also twitched constantly, and a stream of frothy saliva flowed from the left corner of the mouth. His breathing was very irregular, jerking, and occasionally sighing or catching; sometimes expiration was attended with a moan. He was very pale, his lips blue. His pulse was 160. The extremities were cold and uninvolved in the spasm. Chloroform controlled the convulsions for the time being, when the lids closed, the pupils contracted and the pulse fell to 140. In half an hour he again opened his eyes, the lids began twitching, the eyeballs suddenly oscillating, but now and then becoming fixed. Three minutes after these prodromic spasms the muscles of the face became involved in the twitching; a flow of saliva followed, and then came a general convulsion. Being unable to swallow, he was given an enema of potassium bromide and chloral, and chloroform was administered by inhalation. This treatment eventually subdued the spasms, and the patient relapsed into a comatose condition. The corneæ were insensible, the pupils contracted, and the pulse very weak. Three hours later another convulsion came on, beginning with oscillation of the eyes and twitchings of the lids, and being soon followed by a clonic spasm of the left arm and leg. A hypodermic injection of morphia quieted him in ten minutes. His breathing became stertorous, his face livid, bronchial and tracheal râles were present, his pulse was very weak and frequent, and he showed every sign of impending death. He was turned on his side, to rid his chest of mucus and ease his breathing. Stimulants, with potassium bromide and chloral, were ordered.

Remaining in this condition about six hours, his mother called to him, when he opened his eyes and seemed bewildered. He was given drinks, which he swallowed, the first time since the beginning of the attack. He spoke and appeared quite rational. His bowels were now opened by means of a hydragogue cathartic. From this time until morning, being about eight hours, he alternated between spells of dozing and awaking, but seeming always confused.

In the morning he was quite irritable. He protruded his tongue when ordered; it was covered with a white fur, was moist, and not bitten. Vomiting now set in. Temperature 101° F., pulse 144, soft and compressible, respirations 42, irregular, sometimes sighing, imperceptible at times, and then gradually lengthening and becoming stronger. The pupils were contracted and sensitive to light. On pricking his face and upper extremities, even to drawing of blood, he did not wince. Sensation in the lower extremities, however, was much better. The abdomen was very much retracted. Motion was good in all parts of the body, especially observed while throwing himself about on the bed. He articulated well. During the remainder of this day he was in a semi-stupor. In the evening he showed some improvement, sleeping more naturally, and requesting drinks. His pulse was 104, temperature 101° F., respirations 36 and quite irregular. He vomited occasionally. The pupils were contracted and acted sluggishly. He was ordered ice to the head and counter irritation to the back of the neck.

On the third day he was very restless, and had been so during the previous night. He had some cough. His abdomen was more retracted. His pulse was very frequent, temperature 100.4° F., respirations 36. He vomited and complained of headache. During the entire day he was drowsy. His skin was more sensitive. He lay with his eyes partially opened, staring vacantly. On looking directly into his face he neither moved nor closed his eyelids. The pupils were dilated and sensitive to light. In the evening the pulse was 144, soft and irregular, now and then bounding; temperature 101.7°, and respirations 32, regular but labored. His urine was found to be acid in reaction and contained neither albumen nor sugar.

On the morning of the fourth day the pulse was 150, feeble, temperature 100.4°, respirations 28. Bronchial râles were present, with considerable cough. He was indifferent to surroundings; when spoken to did not answer. In the evening, pulse was 150, temperature 102.2°, respirations 28. He passed his urine in bed. His skin was moist. The right pupil was dilated,

the left was about normal. The *tache cerebrale* was very distinct. His respirations were regular and labored for three or four minutes, then came a short but distinct pause, lasting from one-fourth to one half a minute and followed by coughing. With every inspiration his lids twitched. He was now much emaciated.

On the fifth day the staring was increased. When the eyes had been closed for some time and the lids were suddenly raised, a contraction and dilatation of the pupils, lasting thirty seconds, would occur. The pulse was 180; temperature 103 5°; respirations 40, very labored and abdominal; tongue dry and coated. The vomiting had ceased, the bowels were constipated. Flushes suddenly appeared, lasting a few minutes, and replaced by a pale, waxy appearance. *Tache cerebrale* was still quite marked. He swallowed with difficulty. In the afternoon his pulse became quite imperceptible, the temperature 101.5°, and breathing quite labored. Spasms occurred, involving first the left side of the face, and afterwards the right side, and then both upper extremities. They lasted half an hour, and in another half hour he was dead. For eight hours before death he did not voluntarily move his left arm.

Autopsy.—No opacity or exudation was anywhere discoverable, but the pia mater, both of the base and convexity, was streaked with red and more adherent than usual. The opacity, exudation, and thickening found in the central regions of the base in the other cases, were entirely absent in this case. A few miliary tubercles, or what appeared to be miliary tubercles, could be made out by the naked eye, in the pia mater of the anterior frontal portion of the convexity, particularly in the left hemisphere. The specimen examined microscopically by Dr. Hall was taken from this region. No hydrocephalus was present. Coagulated blood was found in some of the vessels of the base. The floor of the fourth ventricle, on each side of the median line, both above and below the auditory tracts, was deeply congested.

Microscopical Examination by Dr. Hall.—The membranes were thickened, and stained more deeply than normal. Here and there along the vessels was a pyriform swelling. No infiltration along the arterioles, where they dipped into the cortex, could be found. The same lesion seemed to be present here as in the other two cases, but in an earlier stage.

Remarks.—We shall give these cases without extended remarks. Most of the symptoms, physical and psychical, were those usually to be expected in cases of tubercular meningitis. The great pain produced on squeezing the femurs, in Case 1, was a peculiar manifestation, and one to which we do not remember ever having known attention to be called.

Cheyne-Stokes respiration was observed in three of these cases. Even in the fourth the breathing was peculiar. It will only be necessary to recall that in this form of respiration brief periods of apnœa recur at intervals. Prof. Wm. Pepper, in the Philadelphia *Medical Times* for May 27, 1876, published an article entitled *Remarks on Cheyne Stokes Respiration, especially in Connection with Tubercular Meningitis.* He gives the notes of two cases, and reference is made to reports of cases by other authorities. We are certainly inclined, with Dr. Pepper, from our own experience in the four cases here reported, to attribute to Cheyne-Stokes respiration positive diagnostic value in tubercular meningitis.

In Case 1 the temperature ranged between 97° F. and 99.6° F.; in Case 2 from 101.2° to 107° just before death; in Case 3 from 101.4° to 104.2°, and in Case 4 from 101° to 103°. Observations on temperature in tubercular meningitis show, as is well known, great irregularities. One of the most recent investigations is that of Jules Turin (*Jahrbuch für Kinderheilkunde*, vol. xvi). Our observations in these cases agree with some of the conclusions of Turin, but differ from others. The first three conclusions of Turin are as follows; 1. Tubercular meningitis is always accompanied by a rise in temperature in one or other of its stages, but very seldom during its entire duration. 2. In a few cases only does the disease begin with a sudden rise of the bodily heat, as in some forms of acute disease. 3. The thermometric results are extraordinarily variable, so that it is quite impossible to establish any typical temperature curve. With these conclusions our observations are practically in accord. His fourth conclusion is that in uncomplicated cases of tubercular meningitis the temperature rarely exceeds 102.2° F., and generally varies between 100° and 102°, but it may sink some degrees below the normal. In the first of our cases the temperature remained a little below or a little above the normal all the time. In all of the other cases it reached a higher point than 102° before death, in Case 2 even reaching 107°.

Case 4 differed from the other three cases in several particulars. A cataleptoid condition and severe spasms ushered in the attack, although he had vomited several times and com-

plained of pain in the abdomen. The patient died within a week after the occurrence of the first spasm. Vomiting, headache, elevated temperature, irregular respiration, but not of the Cheyne Stokes type, alterations in the pupils, *tache cerebrale*, were among the symptoms. Nystagmus was a symptom worthy of special note. The case was probably one in which miliary tubercles in small quantities were here and there in the entire pia, although only visible to the naked eye in the antero frontal regions of the convexity. The tubercular inflammation was apparently more intense at the convexity than at the base. It is not improbable that the nystagmus, and local and general convulsions, were due to direct irritation, by an inflammatory process, of the motor regions of the cerebral cortex. This case should teach us not to make the mistake of supposing that tubercular meningitis is not present because we do not have exudation and suppuration of either base or convexity. The minute tubercles may only be discovered at particular regions when the inner surface of the pia mater is very carefully examined. It may, indeed, be necessary to resort to the microscope to set any doubts at rest. Miliary tubercles may exist in large numbers without causing purulent inflammation of the pia anywhere.

COLCHICUM IN ACUTE RHEUMATISM.

A paper read before the Clinton County Iowa Medical Society,

BY P. J. FARNSWORTH, M.D.,

Of Clinton, Iowa.

In the early days of my practice I went out with the old doctor to see a patient, six or seven miles from home. We found a large, strong man, who had been taken rather suddenly, with a high fever, and severe pains in his joints, in his knees and ankles especially, which were also somewhat swollen, a thick coat on his tongue. The slightest move was agony to him, and a jar of the bed gave him pain. The doctor at once pronounced it a case of inflammatory rheumatism.

Opening the capacious medicine chest which the doctor of the old time carried, he first gave him some powders of calomel and jalap, five grains of the first to ten of the last; this was inevitable; such a tongue demanded it; then from the store of everything, from castor oil to cantharides, he drew out some solid extract of colchicum. The woman of the house produced a half-pint bottle, and the doctor guessed off half a drachm of the extract and put it into the bottle, with a little tincture of cinnamon. It was filled with water, and directions given to administer a tablespoonful every three hours, beginning one hour after one of the powders. Some Dover's powders (pulv. ipecac. c.) say of five grains each, were also left, to be given when the medicine operated. The limbs were ordered wrapped in cloths wrung out of hot water.

The next morning I was directed to make the patient a visit. The woman met me at the door, with concern in her face, and the inquiry in regard to taking the medicine in the bottle. The man said a tablespoonful every three hours, the woman insisted that it was three tablespoonfuls every hour. She being the nurse, and persistent about it, had had her own way, and had faithfully followed for some time her version of the directions. At the third hour nausea had ensued, but the medicine was continued; by the fourth, vomiting and purging commenced. A Dover's powder was given and the dose from the bottle omitted until the sixth hour, when the vomiting and purging was so severe that the woman became alarmed, and had given the cathartic powder that was left over, which not being retained, she had resorted to peppermint tea and spice bags over the stomach, for relief.

When I arrived the patient was almost in a state of collapse, nearly pulseless, with feeble respiration, and an overpowering nausea, covered with a profuse prespiration. His rheumatism was all gone, the pain and redness had disappeared from the joints, and nothing remained except the extreme prostration. Some broth was prepared for him, a little brandy given, a powder of calomel and morphia administered. Calomel—for at that time it was the regulation dose for irritable stomach or ingrowing toe nail; it would have been heterodoxy not to be thought of, to have omitted it.

The man rallied, and in a little time recovered. The after treatment was a bottle of bitters, made of a decoction of cimicifuga and gentian root, a pint, to which was added half a pint of whisky. Dose, a tablespoonful three times a day. Directions written on a half sheet of paper, and tied to the bottle.

Here was a new idea in regard to rheumatism; a direct refutation of all my teaching. "Gruel, warm covering and *six weeks*." "calomel and opium," "digitalis and alkalies," "corn sweets and calamus," and with all or any, four or six weeks. It made an impression on me, and it was not long before I had a case, a child of ten years, unmistakably affected. Wine of colchicum was the form chosen, given with care, in simple syrup, ℥ij every hour; an opiate was

first given, to mitigate the pain. Violent vomiting and purging came on at the fourth hour, and further medication had to be suspended; there was no alleviation of the disease, and the expectant method was followed for three or four weeks, until the disease ran its limit, or nature overcame it. The term "self-limited disease" has done much injury to the practice of medicine, and the expectant method has been fitly named, a "meditation on death." If medicine is of any value, it is in cutting short or modifying disease, and with so many articles of known power, to sit down and let nature wrestle with disease unaided, finds its best similitude in aboriginal surgery, that lets gangrene and inflammation amputate the injured arm in long months, while the knife of the surgeon could do it with much greater safety in a few minutes.

The next case called to was that of a delicate woman of thirty. Her limbs were swollen, the pain excruciating; it was a third or fourth attack. There was evidence of valvular disease of the heart. Here was a case to treat carefully yet promptly. ¼-grain doses of morphine were given, to mitigate the pains, repeated every hour until relieved. A prescription was ordered, consisting of vin. colchici rad., ♏x; tinct. opii, ♏x; tinct. cardam. comp., q. s. to make up a teaspoonful, which was the dose, to be administered every three hours. This was continued for three days, alternating with the morphia. There was no nausea or movement of the bowels. The pain was quieted and the heart kept steady; at the end of that time vomiting and purging came on together; there was severe prostration, requiring careful treatment for a few days, but the disease was conquered, and in a few days more the patient was discharged cured.

I have seen many cases since, and have tried all the various remedies used, but none with so much certainty or success as with colchicum. Combine it so that the stomach will retain it long enough for the system to become saturated with it. Give hypodermic injections of morphine to quiet the stomach and ease the pain, then add opiates and aromatics or alkalies, as the case may be. If it has time to permeate the blood it acts as an antidote to the *materies morbi* that constitutes the disease, then come the specific action, vomiting and purging, and the end of the disease. If this result comes too soon no cure is effected. Sometimes we cannot so guard or disguise it that it will not be promptly rejected, and we get no benefit from it. In such cases we resort to the salicylic acid, which sometimes gives prompt relief but with a tendency to relapse; at other times seems of little value. Then we try the alkaline treatment and patience. So far I have never failed with colchicum if it could be tolerated for two or three days. I have not hesitated to use it with children or feeble adults, or where there existed cardiac complications, and in those cases treated primarily, have seldom, if ever, had the disease affect the heart. I have also reason to think that in small doses it may act as a prophylactic in those cases that are liable to recur. In a case where lithic acid was deposited in large quantities by the urine, especially where the concretions were so large as to cause nephritic colic, it seemed to prevent the concretions, or to dissipate them. If acute rheumatism depends, as some think, on the accumulation of lithic acid, or its rapid formation, colchicum may serve to excite the system to expel it, and prevent its deposit. Vomiting and purging is not effectual if produced by other drugs, or even by colchicum, if it comes too soon.

I have in some instances used salicylic acid, or salicylate of soda, in from five to ten grain doses in the beginning of the case, in connection with the colchicum, which acted as a palliative; also chloroform liniments, warm applications and blisters, in severe cases, but only for immediate relief, while waiting for the saturation of the system with the drug, which effects the cure.

In looking over authorities, I find a diversity of opinion expressed, the older authors holding that it was a valuable remedy for rheumatism; the later ones that it is uncertain, severe, and of doubtful efficacy; all agreeing that it is a specific in gout. Bartholow says of it: "In medicinal doses it increases the mucus and glandular secretions of the stomach and intestines, and probably, also, of the liver and kidneys, and skin. In larger doses, it produces a feeling of epigastric heat, nausea and vomiting, depression of the circulation, muscular feebleness, headache. It frequently purges, producing copious watery stools, and is usually held to promote the discharge of biliary matter. It increases the flow of the urine, of the solid constituents (urea, uric acid, etc.), as well as the water."

Dr. Austin Flint says, of rheumatism: "The majority of pathologists have adopted the supposition of Prout, that the morbid principle is lactic acid, and it is generally accepted as a rational base of treatment."

Fuller, in his elaborate work on the disease, claims for the alkaline treatment the arrest of the lactic acid formation and its elimination, and thus a speedy cure for the complaint. He con-

siders the patient safe from cardiac complication when the urine becomes alkaline, and remains safe so long as this condition of the urine is maintained.

Flint says that, "Rationally, according to this view, what is most to be desired in the treatment is the arrest of the production of the *materies morbi* contained in the blood." I am of the opinion that the slow and cautious saturation of the system with colchicum does this, and that the vomiting and purging eliminates the urates already generated. I have resorted to the alkaline treatment with some success in those cases where the colchicum was too promptly rejected to be of any service, and latterly to the salicylic acid, but only where colchicum failed.

Quinine is a necessary adjuvant in malarial regions, but is of no avail alone; so also iodide of potassium is of advantage where there may be a syphilitic taint. This for acute rheumatism. The remedies and treatment of the chronic form is to be considered at another meeting.

Hospital Reports.

UNIVERSITY OF PENNSYLVANIA.

SERVICE OF WM. GOODELL, M.D.,
Prof. of Clinical Gynæcology.

Reported by GUY HINSDALE, M.D.

Case 1.—Result of an Operation for Uterine Cancer.

This is a case that I bring before you because I wish to show the result of an operation done two years ago, for the removal of a new growth, a carcinoma of the womb—in other words, an epithelial cancer of the cervix. It required the use of the fingers, the curette, the actual cautery, and nitrate of silver, to effect its removal. There has been no return of the disease, the cervix is smooth and covered with mucous membrane, and the patient is much better and has gained flesh. If five or six years is a criterion, I have so far cured three other cases of this disease.

Our patient now complains of pain at her monthlies, and for a very good reason. After scraping the tissues they were compelled to heal by granulation, which means cicatricial contraction, consequently, she has dysmenorrhœa, owing to this contraction of the cervical canal. But this trouble is slight compared with the grave disease from which she has been, thus far, relieved. We can feel no longer any vaginal cervix here; the operation has removed it, and has also narrowed the mouth of the womb, so that I cannot introduce the sound.

The Romans had a very good motto, and I think we will follow it in this case: *Quieta non movere.* There has been malignant disease here, and I do not venture to make any wound that could allow the disease to spring up afresh. The dysmenorrhœa is slight, and the cervix ought not to contract any more. So I shall let the woman alone and await developments.

Case 2.—Extra-Uterine Fœtation.

Here is a puzzler. This case was sent into the hospital as suffering from pelvic abscess. Her history is that she has been ill since the fourteenth of February, thirteen weeks ago, and that she saw her monthlies for the last time on December 25th. She says that in February she was "taken with a severe cramp in the stomach, with a stoppage of water"; that her abdomen increased in size and that for three or four weeks she was confined to her bed. The swelling seems to have made its appearance three or four weeks after the attack of cramp, and ever since that time she has had a faint pinkish discharge from her womb. The cramps returned, but they were not so severe; the patient has become very weak and the tumor is now increasing very slowly, if at all; she has lost flesh and has no appetite. She was perfectly well before Christmas, and has had five children, the youngest nine years ago.

There is a tumor here. What is it? Is it pelvic abscess? There are some things about it that lead me to say that it is, and that it is not. There is a possibility that she is pregnant; she is forty-one years of age; married, and lives with her husband. Placing my hand on the abdomen I feel an irregular outline, as of the doubled-up body of a child. The surface of the womb is very soft, but the tumor is outside of it. I introduce a sound, and it passes in three inches plus. The womb is fixed, as it would be in pelvic abscess or in extra-uterine fœtation. Against the theory of abscess is the fact that she has no night-sweats, and that she sleeps well.

The tumor is not adherent to the walls of the abdomen. Placing my ear upon it, I might expect, at five months' pregnancy, to hear the fœtal heart, but I can hear nothing. Our resident, Dr. Hughes, thought he felt a fœtal movement. There is a certain elasticity about it. In extra-uterine fœtation there is a solid body in a little fluid. I think that here we can get an obscure sense of fluctuation.

If it is an abscess its contents must be let out; if it is an extra-uterine fœtation, we must follow the same course.

What conditions, now, would explain the history of this case?

It is possible that an ovum was arrested at the fimbriated extremity of the oviduct—the morsus diaboli, as it is sometimes called. Having lodged within the tube, the walls are gradually distended, and in six or eight weeks they burst. This termination is often fatal, for the hemorrhage is liable to be profuse.

Pregnancy may be tubal or ovarian, or tubo-ovarian, or we may have ventral fœtation.

On the 25th of December our patient ought to have seen her monthlies, but she did not see them. Six weeks later, in February, the ovum, having been arrested at the morsus diaboli, ruptured, and she was taken with the severe pain already described. She became very weak, and supposing that our diagnosis is correct, it became a case of ventral fœtation, the ovum escaping from the oviduct, and fortunately without a fatal hemorrhage. The placenta remained behind in the tube, and it keeps life in the fœtus. A capsule of adventitious membrane and adherent intestines was then formed around

the fœtus, making the sac in which it lies, just as occurs in a circumscribed peritonitis in Douglas's pouch, the intestines being bound together by the encapsulating lymph. Pain became then a prominent symptom, and she had the signs of pelvic peritonitis. In this manner the uterus became fixed.

It is my belief, therefore, that we are dealing with a case of extra-uterine fœtation, and I shall appoint the operation for next week, and shall choose, by lot, ten gentlemen of the class to be present.

NOTE.—On May 26 Dr. Goodell put the woman under ether, and then the placental bruit and fœtal heart sounds were readily heard.

The abdominal incision was made under the spray, and a living fœtus extracted, but it died almost immediately. The sac in which it was confined was very thin, and lay to the right of the womb, on the right side of the woman. The fœtation was probably a ventral one, but this was not accurately determined. The placenta was not touched, for fear of hemorrhage. The woman was very weak at the time of the operation, and died on the seventh day, from septicæmia induced by the breaking down of the placenta.

MEDICAL SOCIETIES.

NORTHERN MEDICAL SOCIETY OF PHILADELPHIA.

Drs. L. Ott and Chas. K. Mills read a paper upon Tubercular Meningitis. (See page 5.)

Dr. J. B. Walker thought the reports of the cases very important, because of the completeness of the records. He had seen several cases and four or five autopsies after this disease. The first lesions he had seen were in the pia mater, where it covers the Sylvian fissure; he had never seen a case where there was purulent infiltration. The earliest symptoms he had been able to recognize were constipation with vomiting without apparent cause. The next of value was the irregularity of the pulse. The "*Tache cerebrale*" he thought was of no value whatever. In listening to histories of Dr. Ott's cases, he was struck with the great similarity they bore to the irritation from teething.

Dr. J. T. Eskridge had seen several cases. He thought the temperature sheet an interesting feature of these cases. There is no regular course of development, as in typhoid, for example, neither can the irregularity be explained by the amount of irritation at the time. He thought the explanation has to be sought in the amount of blood poisoning, as is the case in tuberculosis of the lungs and in pyæmia. In explanation of the peculiar breathing he would endorse the remarks of Dr. Mills. He had never been deceived in a case of teething, to mistake it for tuberculosis. In teething the temperature is normal and the pupils are usually dilated, both of which symptoms are the reverse in tubercular meningitis.

Dr. Hall had seen several such cases. The account given in the standard works, of this disease, leaves the impression that it is exceedingly rare. During the first two years of dispensary practice he saw seven cases in which the symptoms agreed with those given by Dr. Ott. One of these was remarkable, in the fact that after passing into what was supposed to be the second stage, instead of having the symptoms of the third stage, ending in death and the autopsy, the child passed from the second stage to convalescence and recovery. The case was seen by other physicians, among whom our recording secretary, who agreed in the diagnosis. He reported the case to the Society once before, and recalled it in this connection as teaching one of two lessons, viz., these symptoms are not pathognomonic of the disease, or it is not necessarily fatal, as we usually suppose.

EDITORIAL DEPARTMENT.

PERISCOPE.

Carbolic Acid in Cancer.

The Atlanta *Medical and Surgical Journal*, for June, 1881, contains an article by its able editor, Dr. J. G. Westmoreland, on the above subject, in which he says:—

In a former article the partial history of two cases of supposed malignant uterine disease was given, in which the acid was used. One was beyond all question cancerous ulceration, while the other exhibited the usual evidences of malignant cauliflower excrescence of the os. These were treated almost exclusively with carbolic acid, applied locally. The former improved rapidly in every respect until the case passed from under my care, and gave flattering hopes of permanent recovery, while the latter was perfectly relieved, and has had no return of the disease.

Recently, a case of epithelioma came under my care, in which a malignant ulcerous tumor existed on the face, involving the eyelids, cheek and side of the nose, to the extent of four or five inches. The whole tumor was removed by the knife, and the eyeball extirpated.

Only a few days were required for the sprouting of malignant, fungous, hemorrhagic granulations over the whole raw surface. The cut edge of the skin, which appeared free from disease at the time of operating, seemed particularly prolific of these unhealthy granulations, rising rapidly above the surface of the face. The application of pure crystallized carbolic acid, warmed to the liquid state, was commenced about the sixth day after the operation, and was continued daily, with the effect of leveling down the exuberant growth and destroying the red hemorrhagic appearance. In less than a week from the time of commencing the application the granulations

were healthy, and the formation of new healthy skin proceeded from every direction around the large raw surface, except the upper portion of the nose, where a malignant tumefaction had all the time existed, extending across to a point near the inner canthus of the right eye. The application was made with a camel's hair brush, and to the fullest extent possible, without having the acid to ooze upon the sound skin: this being protected by a dry folded cloth kept near the raw surface, so as to absorb that which drained from the part to which it was applied. At the expiration of six weeks the raw surface was reduced to one-third of the original size, and that which remained unhealed was in the direction of the unhealthy tumefaction on the nose. No healing or formation of new skin had occurred for half an inch in extent at this point. It was not found necessary, however, to apply the acid to all parts every day. At points where the surface kept smooth and pale it was not required more than two or three times a week, while the point referred to on the nose received daily applications, in order to arrest exuberant growth and malignant tendency.

No pain at all is produced by contact of the acid with the diseased surface, but the lancinating pain which sometimes attends the disease is generally relieved by it. The amount of acid necessary may be determined by the visible effect had upon the part. The surface should be made completely white, and short of this we need not expect the full effect of the remedy.

In this case the diseased condition across the upper portion of the nose, and perhaps, in the left nostril, may interfere with a perfect arrest of the disease, owing to the impossibility of applying directly to these parts. By vigilance, and following up the prolongations, however, it is not unreasonable to expect a permanent cure, notwithstanding the vast extent and long standing of the affection before the treatment was commenced.

Jaborandi and Belladonna in Opium Poisoning.

Dr. F. L. Hardeen, of Rochester, N. Y., writes, in the *Michigan Medical News*, May 25, 1881:—

On Sunday, May 1st, I was called up at 1 A.M., and on going to the door found a lad with an empty bottle, who desired to know if I could tell what it had contained, and if it was poisonous. If it was I was to go immediately to Mr. M's, etc., etc.

On examination I found it to be laudanum, a few drops still remaining. I hastened to the house, half a block away, and there found a gentleman about forty-five years of age, fast becoming comatose. He could be aroused with difficulty. From the family I learned that about half or three-quarters of an hour before he had obtained the bottle mentioned—a two-ounce vial, full, excepting what little had evaporated by standing—and drank it all.

The patient was in the habit of going on "sprees," and at this time was just home from one. It was taken with intent to commit suicide, he believing, in his drunken stupidity, that his family and friends—among the very best citizens of this city—were all conspiring against him. He was not in the habit of using the drug in any form, never having taken half a dozen doses of it in his life.

The treatment consisted of emetics, with warm water, strong coffee, belladonna, jaborandi and walking him about. I gave him four doses of mustard flour, each two heaped teaspoonfuls. The first failed to work, the second began to vomit him, the third and fourth, at half hour intervals, with copious draughts of warm water between, did all that emetics could do. Strong coffee was administered and kept down as much as possible, although it was thrown up at times.

Shortly after the last dose of mustard operated two strong men took him into the street and walked him up and down the block, shaking, dragging, and making him walk as much as possible. About once in fifteen minutes he was taken in and given from five to eight drops fluid extract belladonna and coffee, until he had taken four doses of the drug. The coffee was given continuously. No alcoholic stimulants were given, as I believed he had even more than was good for him at the time.

After working over him for six hours I considered him out of danger. I left three half-drachm doses of jaborandi, to be given once in forty-five minutes. This I gave to relieve the throat symptoms, and also to relieve the system, through the skin, of laudanum necessarily absorbed, more or less. I also gave smaller doses of jaborandi, (gtt. v–x) as long as the dryness of the throat continued.

On calling, about 10 o'clock, I found the patient in a profuse perspiration, and a strong odor of laudanum pervading the bedroom and bedclothes, even extending to an adjoining room.

In the afternoon of May 1st he had some symptoms of delirium tremens and spells of vomiting. The latter were very well controlled by bits of ice in the mouth and stomach, and subnitrate of bismuth. The delirious symptoms subsided.

Iced milk was given as food, in tablespoonfuls at a time. Some patches of vesicated mucous membrane from the stomach were vomited, but no serious gastric symptoms presented themselves. The bowels were moved by castorine on the third day. On the fourth he was up, and on the fifth he was out of doors.

I do not know that jaborandi has ever been used in a case like this, but it certainly reached a part of the system out of reach of emetics and cathartics, and in a very prompt and efficient manner. Even members of the family remarked the strong opium odor during the diaphoresis.

Physiological Notes on the Mechanism of Sensations.

The *Journal des Sci. Med.* reports, from the proceedings of the Royal Medical Association of Belgium:—

The theories at present received in science, on the nature of electricity, agree in considering this principle as one of the properties of ether. Ether is looked upon as the common source of light, heat and electricity, with this difference, that heat and light are due to its vibrations, while electricity is the result of its

accumulation or scarcity at a given point, in other words, of its mass or volume.

According to our idea, says M. Bœns, bodies can only exist in nature in a solid, liquid, gaseous or radiant form; they produce nervous, luminous, or electric phenomena, owing to certain particular molecular movements which are communicated to them, and which radiate with more or less rapidity from proximate to proximate, throughout their whole substance, and beyond it. We conceive electricity to be an oscillatory vibration occurring in the integral molecule of bodies.

In like manner sensibility, light, heat and sound, are only the results of oscillations received by and communicated to the elements of matter by bodies while in motion.

Nervous, as well as electric fluid, does not exist.

In support of his theory, M. Bœns reviews the mechanism of the telephone and telegraph, and shows that this mechanism consists in a series of oscillatory vibrations of the particles peculiar to each body or substance, either solid, liquid or gaseous, when submitted to shocks from sonorous waves, or impulses from chemical reactions influencing them.

Applying these ideas to the nervous system, our author compares the visual organs with the telephone, from the eyeball which receives luminous vibrations, to the brain that perceives them, and he argues that the direct perceptions of our different senses, such as sight, hearing, touch, smell and taste, are produced in the same manner as sound is transmitted by the telephone.

The same may be said with regard to *reflex* sensations.

He then undertakes to examine this question: What is ether?

The hypothetic ether of our learned physicists, as well as the terrestrial atmosphere, and human blood, is but an undefinable amalgam of infinitely variable substances, incessantly varying in position and relation, and consequently in intensity and quality. It is the matrix (gangue) resulting from the universal attrition of all the worlds, and of all the atoms which revolve side by side, incessantly attracting one another from all points throughout space, according to the law discovered by Newton, in such a way that there can never be any fixed centre of attraction in the universe.

After laying particular stress on the transformation of luminous phenomena into sonorous phenomena, M. Bœns thus concludes his notice: —

1. Vacuum can nowhere exist.

2. All bodies, in their continuity, consist of atomic aggregates, which may occur under two distinct forms; in one of these forms the atoms or particles allow of interstices between them, which are filled with the liquid, gaseous or radiant substances accidentally enveloping them; in the other form, each atom is but a more or less diffused microscopic mass of the body itself, whose density progressively increases from the periphery toward the centre. In this case there are no interstices between what we term molecules, particles or atoms. That is what must happen in the case of gases and liquids.

3. In this way, it is possible to explain the propagation of sound through gases, liquids and solids, without the hypothesis of an intermediary ethereal fluid, and the propagation of light, electricity, terrestrial magnetism and organic sensibility, without the intervention of any special luminous, electric, magnetic or nervous fluid.

4. Each animal impression due to the exercise of the sensory organs reproduces the special qualities of the agent causing it, in the same way as the telephone transmits the modulations, sound, tone, and all the distinctive characteristics of the different sounds peculiar to the nature and voice of each subject.

5. Every sensation is but the simple effect of intimate *vibrations* or *oscillations*, produced by the conducting filaments distributed throughout each organism.

The Rhythmic Action of the Heart.

Dr. L. R. Weaver, of Providence, Rhode Island, says, in the New York *Medical Record*, May 28, 1881: —

It has long been admitted that the sympathetic ganglia situated upon the heart evolve the force which excites its rhythmic contractions. When a nerve centre discharges this force, which is likened to electricity, it is excited to do so by some stimulus. In the human being this stimulus is the oxygen in the arterial blood, which is brought in contact with the nerve substance by the capillaries. The idea has been advanced by Paget that these local cardiac nervous centres send forth their energy rhythmically, because of a periodicity in their nutritive changes by which they alternately accumulate and set free the nervous influence necessary to produce the muscular contractions, but no reason is assigned for this periodical nutrition.

The coronary arteries branch off from the aorta at an obtuse angle, and run in an almost opposite direction from it, and the resistance to the passage of blood is greater in these coronary arteries during a contraction of the heart. When the heart contracts, the arterial blood is sent with force into the aorta, onward, in the direction of the least resistance (the branches of the coronary arteries being compressed in the muscle), and the aorta distends. During the relaxation of the heart, the walls of the aorta, owing to their elasticity, recoil, and the reflux of the blood closes the semilunar valves, the pressure is removed from the cardiac vessels, and the blood again flowing in the direction of the least resistance enters the coronary arteries. On reaching the capillaries it nourishes the muscle and the ganglia. This chemical change constitutes the natural stimulus, evolving heat, and the discharge of nerve force or electricity, which causes the heart to contract upon its contents, for during this time its cavities have been filling up with blood from the venous trunks.

This circle of action is thus complete, and the requirements for the healthy action of muscle (as given by Marshall) are fulfilled, viz.: "In order that a muscle should contract properly, its temperature must be at a due elevation, its supply of blood must be sufficient in quantity and of proper quality, and its nutrition amply provided

for in the intervals of contraction. Arterial blood is essential to the healthy maintenance of muscular contractility."

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Dr. Edward Borck, of St. Louis, Mo., sends us a reprint from the *Indiana Medical Reporter*, for April, 1881, on "Simple Methods to Staunch Accidental Hemorrhage."

——*Godey's Lady Book* for July is a gem in its entirety. The Fashion Plates, Steel Plates, general illustrations, and the literary contents combine to make this old favorite leader of the fashion periodicals the best that is before the public. Quite a lengthy and highly entertaining novel from the pen of "Sue Chestnutwood," and the usual array of stories and miscellaneous matter from excellent authors. The July number begins the One Hundred and Third Volume, which of itself speaks well for the hold that the magazine has upon the lovers of pure literature.

——The name of the corporation formerly known as Scribner & Co. (publishers of *Scribner's Monthly*, *St. Nicholas*, etc.) has now been changed to The Century Co. The title of *Scribner's Monthly* will become *The Century*, with the next volume. *St. Nicholas* is slightly changed as to its sub-title, being now *St. Nicholas, an Illustrated Magazine for Young Folks.* The July numbers of these magazines are the first to bear the new corporate imprint.

Scribner for July contains a paper of special and timely interest, "The People's Problem," in which the writer takes the ground that the time has come for the people of this country to exercise their right to "alter the government."

Price of *Scribner's Monthly*, $4.00 a year; 35 cents a number. *St. Nicholas*. $3.00 a year; 25 cents a number. Sold everywhere.

BOOK NOTICES.

A Text-Book of Practical Medicine, with Particular Reference to Physiology and Pathological Anatomy. By Dr. Felix von Niemeyer, Professor of Pathology and Therapeutics, Director of the Medical Clinic of the University of Tübingen. Translated from the Eighth German edition, by special permission of the author. By George H. Humphreys, M.D. and Charles E. Hackley, M.D. Revised edition. In two volumes. New York: D. Appleton & Co., 1, 3 and 5 Bond Street. 1881. 8vo, vol. i, pp. 767; vol. ii, pp. 861. Price, cloth, $9; sheep, $11.

Since the death of Professor Niemeyer, in 1871, a new edition of his "Practical Medicine," which has come to be pretty universally recognized as a standard text-book wherever introduced, has been issued, under the editorship of Dr. Eugene Seitz. The translators state that in condensing the original text, in order to give room for a vast amount of new matter which he has inserted, the new editor has sacrificed much of the charm of style and graphic description peculiar to the original, for which reason they have, in preparing the revised American edition, adhered as closely as possible to Niemeyer's original text, while drawing freely, not only from the last German edition, but also from other sources, in order to bring the work up to the present standard of medical science. Several new chapters have been inserted, among others one upon yellow fever, compiled chiefly from Bartlett's "Fevers of the United States," which cannot but render the book more useful to American practitioners. It seems to us a little strange that the author, who was the champion in Europe of the empirical method of therapeutical investigation, and who regarded clinical observations as the only means of arriving at any knowledge that would prove of value in the treatment of disease, should have utterly ignored, as he does, some of the best established facts in therapeutics. Thus he makes no mention, whatever, of the ipecacuanha treatment of dysentery, which is regarded as little less than specific by those who practice in countries where this disease prevails, and who have given it a fair trial. It is true, he recommends ipecac. or tartrate of antimony as an emetic in cases where the stomach is filled with undigested substances, but that is not the way in which it is employed by those who know its value; in fact, it seldom produces emesis, even when given in forty-grain doses, while the relief obtained by the cessation of pain and tenesmus is often almost instantaneous. With the exception, however, of a few slight defects of this kind in the therapeutics of diseases peculiar to tropical climates, which are pardonable, as the work is not a compilation, but the outcome of personal observation, and is characterized throughout by the individuality of its author, we regard it as one of the most valuable treatises on medicine, and destined to pass through many editions, even in this age of rapid book-making, before any other work will take its place.

THE

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D. G. BRINTON, M.D., EDITOR.

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SUGGESTIONS TOWARD A PLAN FOR REORGANIZING MEDICAL SOCIETIES.

Reviewing the general professional proceedings of the six months just closed, the observer will have cause to be gratified with the increased attention which medical legislation has received. Recently we gave a brief review of what had been done in a number of States, and although it was very far short of what ought to have been accomplished, it was more than many winters have furnished. Whatever shortcomings are obvious are, as we have more than once taken occasion to say, at bottom the fault of the medical profession itself, of its lack of united and systematic endeavor.

The political theories of this country have, in the last score of years, been gradually tending toward greater centralization. This is contrary to the original doctrines of "the fathers of the Republic," particularly those of the school of Thomas Jefferson, but they were not omniscient and infallible, and it is probable that this tendency has been forced upon our people, almost unwittingly, by the logic of events, by which is meant the necessities of the hour. Great general aims can be accomplished quicker and cheaper by a well directed central authority acting through trained and intelligent subordinate authorities than by a series of competing equals.

These political considerations are introduced here as the preface to some suggestions for a reorganization of the medical societies of the United States. As at present constituted they are far less efficient in the promotion of legislation than they should be. What is needed is greater centralization. What we require in order that the profession exercise the most potent influence, is that all medical societies be distinctly but branches of one central society, of which every regular physician should have to become a member, if he joins any.

It is estimated that at present the membership of the American Medical Association varies to the extent of nearly one half every year—that is that not more than fifty per cent. of those in membership this year will remain so next year. This is easily understood, from the constitution and bylaws of the Association. The result is that its influence on general or State legislation is very small indeed.

We shall now suggest a plan for concentrating the medical power of this country, and while submitting this plan as one that seems a good one, we shall be glad to have a discussion of the whole subject opened up in this journal.

Let the State Medical Society of every State be no longer merely a State society, but avowedly and distinctly the State branch of the American Medical Association, and be so called, as "the Georgia Branch" or "the Illinois Branch of the American Medical Association." Further, still, let every county society be recognized as "the —— county chapter of the —— State branch of the American Medical Association," or by some shorter title of equal purport. Let it be understood that every member of a county medical society or chapter is, *ipso facto*, a member of his State society and also of the American Medical Association; and, as it is well known that honors and privileges which cost nothing are

counted as nothing, let a uniform fee be established for every county society throughout the United States, say of three dollars, one dollar to be retained by the treasurer of the county society, one to be forwarded to the treasurer of the State society, and one to the treasurer of the American Medical Association, to be expended for the objects of the Association.

By this organization an *esprit de corps* will be fostered, and a living interest in organization be created, and a centralized power be established which can be wielded effectually for the good of the profession and the public.

The details of the plan could easily be devised, and a unity of action would be gained which would be respected by legislators, because it could make itself felt. More ample funds would be placed in the hands of the State and General Societies for carrying out their purposes; and a regular and fixed income, increasing year by year, would guarantee them prosperity and influence.

Without pursuing the subject further at this time we urge our readers in all parts of the country to take the matter under thoughtful consideration; and, as above said, a discussion of the subject will be appreciated at this time.

Notes and Comments.

Therapeutic Notes.

LUTON'S EXHILARANT MIXTURE.

Dr. Luton, of Reims, has found that the following mixture produces a highly exhilarating effect, somewhat similar to that of nitrous oxide, especially in excitable temperaments:—

℞. Tincture of ergot, 5 grams
Sol. of phosphate of soda ($\frac{1}{10}$), 15 grams.

Take in a quarter glass of sugared water.

This produces "a lively gaiety and uncontrollable hilarity."—*Bull. Gén. de Thérap.*

INHALATION OF CARBONATE OF AMMONIA IN BRONCHITIS.

In the *Journal des Sciences Médicales de Louvain*, May, Dr. Melsens recommends, in chronic bronchitis, to carry on the breast a sachet containing some pieces of carbonate of ammonia. The patient thus respires an ammoniacal atmosphere, and finds great benefit from it. The popular notion that the air of stables is beneficial in severe coughs arises from the effect of the ammoniacal odors present.

TRÉLAT'S ANÆSTHETIC MIXTURE.

M. Trélat, the Parisian surgeon, finds that for slight operations the following mixture, administered three quarters of an hour beforehand, will often produce sufficient anæsthesia:—

℞. Hydrate of chloral. ℥j
Syrup of morphine (Fr. cod.), ℥iv. M.

If greater effects are wished, a few whiffs of chloroform may be given without awaking the patient.

AMMONIACAL COPPER SULPHATE IN NEURALGIA.

This agent, introduced by Dr. Férèol, may be prescribed as follows:—

℞. Ammoniacal sul. of copper, gr.ij–iij
Simple syrup, ℥ij
Mint water, ℥iij. M.

This amount to be taken twice daily, at mealtimes. Or:—

℞. Ammoniacal sul. of copper, gr.x
Extract of valerian, gr.xv
Extract of opium, gr.ij. M.

Make twelve pills. Two daily, in cases of much stomachal irritability.—*Dr. Deligny.*

In obstinate cases of trifacial neuralgia, this agent gives, at times, extraordinary relief.

ANTISEPTIC STIMULATION IN TYPHOID.

Prof. Bouchard (*Le Concours Med.*, Mai, 7) recommends that stimulants used in typhoid fever should be mixed with antiseptic substances, in order to prevent purulent infection from the intestinal lesions: for instance—

℞. Rum, ℥iv
Creasote, gtt.ij
Phenic acid, gr.iv
Salicylic acid, gr.xv. M.

Small quantities of this or a similar antiseptic stimulant may be given, as required.

Grindelia Robusta as a Remedy in Asthma.

Dr. T. M. Rochester, in the *Proceedings of the Medical Society of the County of Kings* for May, 1881, says that he has employed the grindelia robusta for more than two years, both in dispensary and in private practice, having used it in more than sixty cases of which he had taken notes, and as many more without any record, and that in no single instance has it failed to effect a prompt relief. It has seemed to be of equal efficacy, whether employed for simple spasmodic or for inflammatory asthma. In two cases of cardiac asthma, when combined with the other remedies, it has relieved the dyspnœa as nothing else would. It is useful both during the paroxysm and in the intervals, although it is to be given differently in the two instances. For the

former it should be administered in half-drachm doses of the fluid extract every fifteen minutes, until the spasm is relieved. At other times it is to be given in fifteen to twenty-drop doses, at intervals of from four to six hours, and continued for from a week to ten days, when, except in very obstinate cases, it will have accomplished what was intended, and the patient will experience relief for a period of six or eight months, and in many cases longer. At the approach of another attack the use of the drug for a few days will be found all that is necessary.

My usual dispensary formula for its administration is as follows:—

℞. Potassii bromidi, ℥ ss
Fl. ext. grindeliæ robustæ,
Syr. ipecacuanhæ, āā ℥ j
Aquæ puræ, ℥ ij. M.
Sig.—Teaspoonful every four hours.

He has also used it with marked benefit, in a great many cases of bronchorrhœa and chronic bronchitis, as an adjuvant to other measures.

On the Pathological Condition Causing "Metallic Tinkling."

Dr. F. Peyre Porcher, of Charleston, S. C., reports, in the *Virginia Medical Monthly* for May, 1881, a case of "Metallic Tinkling," stating that during seventeen years' hospital experience, with the constant practice and teaching of auscultation and percussion, he has heard it in but three cases, and being greatly desirous of investigating the causes, he hastened to make an autopsy of the last example.

It occurred in a male, æt. 25, in the City Hospital. He had pleurisy, or pleuro-pneumonia, four years previously, and he entered August 28th, with cough and with gurgling, crackling and other signs of a cavity in the apex of the left lung. But it was the right lung which now attracted particular attention, there being heard throughout its upper lobe an extremely well marked metallic tinkle—a decided "clink," upon inspiration; and upon both this and expiration a sound as if the breathing occurred in a cavity lined with a delicate film of copper or other metal. This was obvious to the house physician, Dr. Burgess, and to all who listened to it during seven or eight days.

Death occurring on the 12th of September, a post-mortem examination was made, when the following conditions were revealed:—

The lung was enveloped in a stratum of air; pneumothorax existing from the old pleuritic effusion, which had been absorbed. One border of the upper lobe, to the extent of an inch in length, was fastened securely—was hung up, so to speak—to the internal wall of the chest, at a point within, corresponding to the position of the right nipple, so that, to get the lung out, this had to be divided with the knife. The lung was consequently suspended in air and in a state of tension, and the chest wall acted as a sounding board. Within the lung, extending from the apex some four or five inches downward, was a large cavity with several strings or bridles stretching across it at different intervals, with a considerable collection of mucus. So the inspired air resounded against the tense walls of the cavity—the connecting bridles and the fluid serving also as elements in the production of the sounds heard in auscultation. There was no metallic ring upon percussion. At the apex of the left lung, as was anticipated, was a cavity of much smaller dimensions. There were no adhesions in this lung.

Therapeutic Fumigations.

The *British Medical Journal* says, in a recent issue:—

It was mentioned rather pointedly in some of the daily papers that Lord Beaconsfield had derived relief from one of the many preparations which evolve fumes when burnt. These preparations have as a basis, nitrate of potash, mixed with stramonium, belladonna, etc. We have authority for stating that it is a great question whether the temporary relief afforded by the stimulating property of the fumes, causing expectoration, is not followed by injurious results produced by the irritating properties of the inhalation. We should, therefore, recommend our readers to carefully watch the use of any such preparations.

Cider Preservative.

The following communication to the *American Journal of Pharmacy*, by F. L. Slocum, may prove of value to some of our readers in rural districts:—

About a year ago I analyzed a sample of a cider preservative that was being sold here at the rate of $2.00 per ounce; it was simply *salicylic acid.* It has been extensively used here, and samples of cider that have been kept for from six months to a year still have the peculiar flavor of sweet cider, and *are* sweet cider.

One ounce is sufficient for a barrel of thirty-two gallons. Put the acid in the sweet cider and mix well, then bung up; it will not ferment. For the preservation of sweet cider salicylic acid is far superior to bisulphite of lime.

Special Reports.

NO. XII.—ANTISEPTICS.

The attractive germ theory of disease has led to an extraordinary amount of attention being paid to antiseptics, disinfectants, antizymotics, germicides, and all that class of products.

In a monograph of Dr. Crown, quoted in the London *Medical Record*, January 15th, he gives a method

To Determine the Relative Value of Antiseptics.

This method is founded on a knowledge of the fact that when blood commences to putrefy, the spectrum of hæmoglobin undergoes a modification; for the two characteristic absortion-bands of oxide of hæmoglobin there is substituted the characteristic band of reduced hæmoglobin. This gradually becomes paler, and finally disappears as the blood becomes more decomposed. The author suggests that a measure of the efficacy of a given disinfectant may be obtained by observing how far it is capable of retarding or arresting putrefaction, as shown by this spectroscopic test.

The author details his experiments at considerable length, some of which were performed on living animals. His conclusions are as follows:—

1st. The spectroscope is capable of furnishing a precise indication of the relative value of certain antiseptics. From the list, however, of such, must be excluded those antiseptics which, like sulphate of zinc, or alum, or tannic acid, act chemically on the blood and decompose the hæmoglobin. So also must be excluded certain other substances, which impart a peculiar color, or have a spectrum proper to themselves, such as potassic permanganate, sanguinaria, etc.

2d. The spectroscope demonstrates that certain substances are, in the proper sense of the word, antizymotic or anti-reduction agents.

Of antiseptic substances, or those which check decomposition, the most efficacious are, in order, *chloral, arsenious acid*, and *arseniate of soda.* In the same category, but much inferior in strength, are boracic acid, borate of soda, and lupuline.

A somewhat similar comparative investigation was recently made at St. Petersburg, by Dr. N. Schwarz, an account of which we find in the *American Journal of Pharmacy*, May. The experiments were conducted in the pharmaceutical laboratory at Dorpat, and are thus described:—

The nourishing liquid was a solution of ten grams white sugar crystals, one gram of ammonium tartrate and 0.5 gram of potassium phosphate in 100 cc. distilled water. 20 cc. of this liquid were infected with 3 drops of infusion of tobacco, about two days old and turbid from numerous active bacteria. The most active antiseptic tried was picric acid (1 in 10,000 to 15,000); then followed iodine, sodium borosalicylate, hydrocyanic acid and aluminum acetate (1 in 5000); oil of cinnamon (1 in 2500); arsenic acid, cinnamic acid and vanillin (1 in 2000); chloral-hydrate, chrysophanic acid, and rhinacanthin (1 in 1000); tannin and Peru balsam (1 in 666); styracin, camphorated phenol, oil of cloves, copaiva and gurjun balsam (1 in 500). The following had to be used in more concentrated form: gallic acid, monobromated camphor, boric acid, borax, magnesium, mono- and di-borocitrate, benzohelicin, mongumic acid, peonyfluorescin, zinc sulpho-carbolate, potassium xanthogenate and potassium chlorate. Glycerin was active only in the dilution of 1 to 3, and sublimed sulphur, magnesium triborocitrate, saltpetre, chloroform, salicin, bile and sulphuretted hydrogen possessed only a slight or indifferent activity.

At the Chemical Society of London, in April Mr. W. M. Hamlet read a paper "On the Action of Compounds Inimical to Bacterial Life." The cultivating fluids used comprised Pasteur's fluid, beef tea, hay infusion, urine, brewers' wort, and extract of meat. These are sterilized by boiling for ten minutes in Pasteur's flasks, cooled with suitable precautions, and then seeded with hay solution, and the substance under examination added. Many gases, etc., were tried. Chlorine and hydric peroxide were fatal to bacteria, while chloroform, creasote, carbolic and salicylic acid, etc., hindered their development, but did not destroy them.

Disinfection of the Atmosphere of Rooms.

A writer in the *Lancet*, December, 1880, urged the use of a steam "bronchitis kettle," to disinfect the atmosphere of sick rooms. He placed tow wet with carbolic acid in the nozzle. He observes:—

It is very remarkable to note how grateful the purification of the atmosphere of a sick-room is, both to patients and to attendants. Cases of severe pneumonia have been strikingly benefited by the use of carbolic-acid fumigation, and in cases of diphtheria some such arrangement should be continuously in use, both for the benefit of the patients and also for the protection of attendants and fellow-occupants of the ward. In a case of great gravity I had an elastic tube fixed to the kettle, and the funnel with the carbolized steam flowing from it was brought close to the bed of the patient, giving wonderful relief to his sufferings. Every sick ward—that is, wards constantly used for sickness—ought to be furnished with the means of antiseptic fumigation, and there are few cases that would not bear the antiseptic steam diffused by this apparatus.

In an article in the Dublin *Medical Journal*, of

June, Dr. J. Lane Notter writes to prove that the most efficient disinfectant for the air of a room is *nitrous acid*. He believes that in this substance we have a chemical agent which will arrest the development and further reproduction of septic microzymes, and which is, therefore, capable of destroying contagion. This position he demonstrates by various experiments on putrefying solutions containing active bacteria. The nitrous acid may be generated by the action of nitric acid on copper wire.

Antiseptics in Surgery.

"Listerism," as it has been called, seems to hold its own in spite of the severe criticisms of those who claim it is nothing more than cleanliness made difficult. Some points in its details are worthy of note. In the Glasgow *Medical Journal*, for last November, Dr. Beatson had a very good article on "The antiseptic method of treatment," from which we extract his directions about antiseptic sponges:—

How to Prepare Sponges.—1. They should never be immersed in boiling water, as it has an injurious effect on them, especially in cooling, causing them to shrink and become hard and tough. 2. Sponges should never be wrung; it breaks their fibres and injures their elasticity. They should be *squeezed* dry. 3. In an ovariotomy count the sponges, and on no account allow any of them to be cut during the operation. 4. When required for an operation the sponges should be removed from the jar of 1-20 lotion in which they were soaking, and be placed in a basin with 1-40 carbolic lotion around them. 5. As required, they should be handed one by one to the surgeon, being first squeezed quite free from all lotion. 6. If it is necessary to have a number of sponges lying ready to the surgeon's hand, a towel should be wrung out of 1-20 lotion and laid over the patient near the seat of operation, so as to serve as an antiseptic basis on which they may be placed and be within reach, and also within the area of the spray. It is very risky to lay sponges down anywhere outside of the spray. 7. The dirty sponges should first be squeezed free from the blood, into some suitable receptacle, and then washed in the 1-40 carbolic lotion, after which they are again squeezed dry and handed as wanted. 8. If it can be arranged, it is convenient to have such a number of sponges that they do not require to be used more than once during an operation.

How to Clean Sponges.—The soiled sponges are soaked for twenty-four hours in a solution of the common muriatic acid and water, of a strength of 1-8. This cleanses them thoroughly from blood, oil, or any other impurity that may be present in them, and renders them quite white, after which they are washed in warm water, which is changed two or three times, the sponges being squeezed and pressed with the hand each time. They are then placed in an earthenware jar with a lid on it and allowed to soak in 1-20 watery solution of carbolic acid until required.

In making Lister's boric acid salve, the ordinary formula yields a hard salve, brittle in cold weather, and not convenient. The following formula has been offered as a substitute by a writer in the *Phar. Zeitung*.

℞.	Melted paraffin,	℥ ij
	Oil of almonds,	℥ iij
	When cold, mix	
	Powdered boric acid,	℥ iss
	Soft paraffin,	℥ ij.

The ingredients are said not to separate, and the salve will keep for years.

Lister's antiseptic gauze is prepared, according to C. Merciéres, by melting together resin 5 parts, paraffin 7 parts, and crystallized carbolic acid 1 part, and dipping into the mixture for about five minutes pieces of unsized gauze or muslin. The excess of the mixture is removed by slight pressure, the fabric is spread out in layers, covered on both sides with pieces of gauze to prevent the dropping off of the carbolic mixture, and after having been placed between two slabs of marble for about twelve hours, completely dried by exposure to the air.

Antiseptic Treatment of Erysipelas.

Subcutaneous injections of *carbolic acid* have been extensively used in Germany for the local treatment of erysipelas. The affected region is enclosed by a series of injections of a one per cent. solution, and these are repeated daily, morning and evening, until the fever has subsided. They appear to produce no local irritation. M. Flaminio Tassi has lately recommended *picric acid* for the same purpose. He was led to employ it by the consideration that this acid, penetrating into the deeper layers of the skin, exercises an astringent action on the vessels, and also acts as an antiseptic. The astringent action may be expected to lessen the migration of leucocytes, which, as Wolmann and Steudner have shown, attends the erysipelatous dermatitis. In four cases in which he has employed this method of treatment, the extension of the inflammation was effectually arrested, while the patients have complained of no inconvenience. In addition, compresses wetted with a saturated solution of this acid were applied over the inflamed area.

Antiseptics in Gynæcology.

Both in gynæcology and obstetrics the antiseptic treatment has an established foothold all over the world. In the Boston *Medical and Surgical Journal*, Nov. 15th, Dr. Elliot concludes that the weight of microscopic and clini-

cal testimony goes to show that puerperal fever and the diseases caused by the absorption of putrid poisons are one and the same. The finger of the examiner, the instruments, etc., are the carriers of the disease in the great majority of cases. In cleanliness and antiseptics, we possess both prophylactic and curative means. Looking at ovariotomy as an example, much improvement in the results of gynæcological operations may be hoped for by doing them antiseptically. A beginning has already been made in operating about the vagina and cervix uteri under a constant stream of carbolized water, and applying antiseptic dressings. The mortality from dilating the uterus has been greatly reduced by using antiseptic precautions.

The antiseptic management of parturition is now carried out in full detail in the Maternities of Copenhagen, Berlin, Prague, and other European cities. The result has been an extraordinary diminution in deaths from puerperal fever and other forms of blood poisoning; in one instance the mortality was reduced from 1 in 32 to 1 in 144. The consideration of this branch of the subject will, however, come up more properly in a report on obstetrics.

(To be continued.)

CORRESPONDENCE.

Talipes Equinus: Pott's Disease, etc. A Talk with Prof. Lewis A. Sayre.

ED. MED AND SURG. REPORTER:—

I recently had an interesting conversation with Prof. Sayre, of which I made notes, and on reviewing them, there seems to me so much in them of general interest, that I forward them to you for publica ion. The Professor said:—

There has come to my notice recently an interesting case that had passed through the hands of a number of gentlemen in this city during the past two years, and has even been in the hospital wards for some time, without having been recognized; while treatment has been given the case, it has been a treatment wrongly directed. As ordinarily found, talipes, in its various forms, is a more or less well marked condition; or in other words, club-foot, of whichever nature, is, in ninety-nine cases out of a hundred, so well character ized that he who runs must observe. It does occasionally happen, however, that this rule has an exception. Let us compare some cases: we have here a man, in whom the weight of the body, instead of being transmitted in an almost direct line through the heel to the ground, is transferred to the ball of the foot, the heel being drawn up from two and a half to three inches by the contracted tendo-Achillis. As a companion picture or case is this other man, who presents the condition of talipes equinus in the most extreme degree; the heel is pulled up till the only part of the foot in contact with the ground is the tip of the great toe. Now, no man needs to be told what the trouble here present is; they are extreme cases, that tell their own story, and suggest their own method of relief, about which I have a very important hint to make later.

Now, if anything has one extreme, it logically follows that it has another, and this proposition is essentially true of talipes. There may be a state present in which talipes is not at all suspected, of which fact this case under discussion is a shining example; for two years he has been treated for what on the face appeared to be a condition of paralysis of the extensor muscles of the leg. As he stands before us we would not, even when examining him, rather critically, detect any club-footed condition; he seems to rest fairly well on the heel of the foot, and to present rather the condition of extensor paralysis than anything else. So little, in fact, is a talipetic condition present that I was myself at first deceived; but on delving more deeply into the case, I noticed that there was an unusual curve in the arch expressed between the points of contact of the heel and the ball of the foot, and I noticed further, that while the *under* and *fore* part of the heel came well down to the ground, the posterior portion did not do so markedly; that there seemed to be some power holding it in check. Seeing this state of affairs I was led to suspect a condition of talipes equinus, and to apply an unfailing test for the discovery of this condition. If a rope be taken and put in a state of extreme tension, and then pressure made on it, there will be a characteristic reaction; now, in the same way, if the tendo-Achillis is thus forcibly extended, in cases of suspected equinus, and then pressure with the finger or a sudden sharp stroke is made upon it, a reflex action takes place, manifested by a spasmodic condition or reaction, reflex in character, of the extensor; this is characteristic and cannot be mistaken. Now, for the relief of any and all of the three conditions discussed, there is but one mode of procedure, and that is tenotomy of the binding tendon. Unfortunately, though, there has grown into repute a way of doing this operation that is. I am tempted to say, almost criminally wrong. There has been inculcated in the average medical student, and the profession generally, teachings that are essentially false.

If a tenotomy must be done, do it, and do it thoroughly and *philosophically*. There has gone abroad through the profession an idea that, to secure a prompt and strong union of the divided ends of the tendon, the foot should not be put in a state of extreme tension; that the ends of the tendon must not be, at first, widely separated, but left in such a state that the effusions from the two extremes may readily and rapidly unite. Now, this notion is radically erroneous; let us see what it results in: a tenotomy is performed; the opening made by the tenotome is hermetically sealed. So far very good; then the shoe or extending apparatus is put on the foot, and gently screwed up, so as not to too widely separate the ends of the divided tendon; in this position it is left till the two ends become united by the effused matters, and more or less organization has taken place; now, then, the surgeon's work again commences; a new tendinous material having been

poured out, that manifestly, from its recent organization, is not prepared to be worried and irritated, is to have exerted on it a stretching force, which extending power is to be increased daily, or weekly, till the tendon is stretched or drawn out into the length required. In other words, an India-rubber process of cure attempted, with the proviso forgotten by the advocates of this primitive procedure, that even rubber loses its elasticity when constantly stretched and kept under the influence of an extending force. The result is, that when the patient gets through with his stretching experience, he has, perhaps, not an equinus to comfort him, but a debilitated, over stretched tendon. I would, therefore, lay it down as a rule absolute, that no matter what tissue is to be divided, muscle, tendon or fascia, do it, and do it thoroughly, and *at once* bring the limb or part into the position that it is intended it shall eventually and permanently occupy, *and keep it there.* Nature will be careful to effuse material enough to again join the severed structure, no matter how extensive may be the gap, and it will secure and maintain a strong, healthy connection, that has not been badgered to death by stretching, and weakened beyond hope of a healthful recovery. I speak strongly in this matter, for I feel that it is a subject but too little, and very often wrongly, understood, by the general practitioner and surgeon.

There is another subject, while not directly allied to talipes in any shape, is yet one which I find in my daily practice has not yet become understood by many of the profession. I refer to Pott's disease and its treatment by means of the plaster jacket. While the pathology of the disease is now fairly well comprehended by surgeons, yet they seem to persist in making an error in regard to the best, and, I am tempted to say, the easiest manner of treating the complaint. Changes, almost innumerable, have been made upon the various mechanical appliances that have been devised for the relief of the unhappy sufferers from this complaint. I have daily coming to me patients who inform me that the remedy is as bad, and perhaps worse, than the disease; and truly I can believe them when I see upon their skins spots of ecchymosis and ulceration denotive of the points upon which iron braces and pads have been made to push and pull, in the vain hope of thus forcing the column into place, and then keeping it there. Others, again, are the victims of the wheel-chair mania, or some of the modifications of an apparatus to support the shoulders by passing the body through an open framework supported upon wheels, and allowing the body to drag from supports catching under the axillæ, the feet touching the ground, the plea being that thus the sufferer is allowed the boon of out-door exercise; but while this may be granted, yet it is a favor for the enjoyment of which he pays dearly, by the fact that he drags around with him a burden that, by its very weight, draws out of him the strength that it is so essential that he retain.

Now, I contend, and I think by the record of my cases I am justified in assuming the ground, that any apparatus further than a bandage, best made of cross-bar muslin, cheese cloth, or crinoline, some plaster-of-Paris and water, is not at all necessary, for the treatment of Pott's disease. But I must attach this proviso: the apparatus must be applied correctly, and further, that the patient must not be made to feel that he is about to be martyrized at every renewal of the jacket. I know of people who have come here with the expectation, not unfrequently originated by their medical attendant, that they were to be hung up, in much the same manner as we would hang up a sheep to dress it; that they were to be tortured, etc.; and at times, I am sorry to say, sad experience has been their teacher in this matter; they have had jackets applied by those whose education and judgment should have dictated a proper and rational course to be pursued in their application, but who, unfortunately, transgressed one of the golden rules of the procedure, namely, *that never, under any circumstances or conditions, be they what they may, should the extension of the patient's body be carried beyond the point of absolute and easy comfort,* for there is nothing to be gained and everything to be lost by transgressing this rule. The idea of hauling patients up and leaving them to swing round and round unsupported, while the bandage is applied, in order, as argued by the votaries of *absolute* suspension, to get the utmost extension, and consequent straightening of the spinal column, is simply barbarous, and has nothing to recommend it, either in poetry or reason. The patient must learn to have confidence in, and not fear of, him who seeks to relieve him, in this as in all other procedures in our art. The sufferer must himself be the judge of the amount of comfortable extension; he can be elevated to that point, and then allowed to hold himself there by means of the pulley cords, upon which a small, spindle-shaped, wooden sliding handle, should be placed, for the patient to grasp, this being secured from slipping by means of a knot made in the rope beneath it; *he should never be suspended so that his feet do not rest upon the ground sufficiently to afford a fair amount of support.*

Further, in regard to the shirt to be employed: we are wont to give the name skin-fitting to any ordinary gauze shirt, or vest, such as is commonly used for summer underwear, whereas, the fact exists that in ninety-nine cases out of a hundred they are not skin-fitting, but more or less creased, and consequently, I hold, unfitted for the purpose here in view. I make it an invariable rule to have each patient's shirt woven to fit him; he is sent to a manufacturer of these goods, who measures him over all the angles and curves of the trunk, and then weaves a seamless shirt in accordance with these measurements. Placing a shirt on a man, that, to fit him skin tight, has to be creased and doubled, is not the correct thing; a creased stocking is not pleasant to wear, and a creased shirt cutting into the flesh, already at a low ebb of vitality, beneath a case jacket, is but another form of Dante's Inferno.*

Another error that I have found the practitioner to make, though this is more characteristic of the English surgeons than our own, is the permitting of instrument makers, etc., to put on a plaster

* The measure in fitting a shirt should be taken around the bust, waist, hips, and the length of the body from the shoulder down to a point about two inches beneath the perineum.

jacket. I could never comprehend why, as we never permit an instrument manufacturer to dress and bandage a fractured limb, there should be delegated to him the dressing of a diseased spine, unless it be, indeed, the dread of slightly soiling one's own hands, which, of course, may be, with some, a great consideration. As to substitutes for plaster jackets, such as felt, leather, etc., I have this to say: you can never make them fit as tightly, accurately, and nicely as a plaster jacket. It is absolutely essential, in the treatment of these cases, that an absolute fit be obtained, especially around the hips, as otherwise precious time is lost, and irreparable damage may be done. There can be no question that a leather jacket, after having gone through all the processes necessary for its manufacture, does not fit as closely as the original jacket from which it was fashioned, and consequently one of the cardinal points of the treatment is violated.

Again, it is not at all essential that the jacket, when finished, shall measure half an inch in thickness, as I have seen them; nor yet should dry plaster be rubbed over the bandages while still wet, to give the dressing a finished appearance; it simply requires to be calcimined, so to speak, by rubbing the bandages with the wet hands; thus finished the patient does not leave in his track a line of plaster chippings. After the plaster has set, any portion of the shirt extending above orbelow the jacket, as well as the portion knotted over the shoulders, should be cut off; at any point where the jacket impinges unpleasantly a small section should be removed. Ordinarily there should be placed over the mammæ, in girls, pads or woven screens, that can be withdrawn after the dressing is completed; it may be well, also, in both sexes, to fit the jacket after dinner or a full meal, in order that the stomach may not be pressed upon when in a state of repletion, as it would be if it were fitted over an empty stomach. Before commencing the application of the bandage the shirt should be secured in position by means of a nursery pin, passed through the skirts of the shirt, close to the perineum. In case it is desired, the jacket can be slit up in front in about twenty-four or forty-eight hours, and lacers inserted, thus permitting ablution, etc., to be performed; but this remark applies rather to the second than the first jacket, which should be retained *in situ*, uncut, for some length of time (a month or six weeks), in order to afford the best possible support. It probably will transpire that, at the end of a week or ten days, the jacket, if examined, will be found to have seemingly grown too large for the patient, over the scapulæ or the ilium. The remedy for this is to remove a wedge-shaped portion marking the greatest amount of seeming enlargement, to bevel the remaining edges, and by a series of, first entirely circular, and then *loosely reversed* turns, to cover in the gap, finishing off by a few circular turns around the trunk, in the same manner as the first turns. The piece removed will denote the amount of straightening gained, the measure taken being from the integument to the inner aspect of the section, before removal, when placed somewhat on the stretch. In a case of a lady of this city, seen by the reporter, this amounted to as much as two inches in a case that had been under treatment for about ten days, and in whom, before the application of the jacket, the space between the inferior angle of the scapula and the crest of the ilium barely admitted the insertion of two fingers' breadth. It is interesting to study, from week to week, the amount gained, and not only gained, but permanently retained. Of course, it is essential that the patient be placed upon a generous diet and tonics, with which latter, however, the patient must not be flooded, and that he take out door exercise, being permitted to walk and move around as freely as he wills, with the reservation that he do not tire his system too much; in other words, that he be governed by the rule of a "happy medium," remembering that in overdoing himself, every ounce of vitality carelessly used up will be by nature required to be compensated for by more prolonged suffering. As to the time that the jacket must be worn, there can be no rule; every man is a law to himself in this case; just so long as the vertebræ feel that they need the support, just so long will the man's feelings dictate to him to retain it; in fact, so much is its function like that of a corset, that its removal becomes, after a time, as much of a loss as the loss of that piece of apparel; there is such a certain sense of security, and of being braced, about it, that it becomes rather pleasant than irksome to wear; at least, this is the testimony of a number to whom the reporter has spoken, and who, of course, should be capable judges.

Philadelphia. G. F. S.

Crude Petroleum.

ED. MED. AND SURG. REPORTER:—

I have for some time contemplated availing myself of a brief space in your widely read columns for the purpose of calling the attention of your numerous readers to the medicinal use of crude petroleum. I have been prescribing this new remedial agent for about a year, and the results of said use have been so perfectly satisfactory that I do not feel that I would be doing my duty to suffering humanity were I to keep silent in regard to it. I have given crude petroleum in all forms of bronchial, pulmonary, and pharyngeal troubles, and I am happy to bear record that in every instance its effects have been to greatly relieve and palliate, if not to work an entire cure. I have found it far superior to cod-liver oil in phthisis, as its effects have been not only to relieve the cough and allay the extreme pulmonary irritation, but it improves the appetite and overcomes that indifference and distaste for food, increases the weight of the body and begets a sense of comfort which I have seen exhibited by none other of the noted remedies usually given in these cases. I will mention a case of mine now under treatment. Mr. Robert S., a farmer, 56 years old, has always been a laborious man, but for a year his health has been failing, and a confirmed cough has fastened itself upon him, with severe pains and cramps, "stitches," as he calls it, through his left lung, and very free expectoration of blood for some two or three months previously to applying for treatment, almost amounting, at times, to a profuse hemorrhage. I gave him a purgative of three Cook's pills and directed

crōton oil externally, and pills of four grains of crude petroleum and three grains pulv. Doveri, as constitutional treatment. After taking the pills two weeks all signs of blood in the expectorations had vanished, pain had almost disappeared, his appetite had improved, cough greatly benefited, and now rapidly subsiding. After being under treatment less than a month, he is able to return to his farm labors, but I have suggested he continue treatment for not less than six months, as several of his ancestors have died of consumption. I have another case who relapsed from pneumonia and took a very severe cough, became confined to his room, and after six months' treatment his medical attendant told him to employ other professional advice if he chose, as he could do nothing more to relieve him and considered his case hopeless. This patient was placed upon the above prescription without the ol. tiglii, and after six weeks' taking the pills I was yesterday called to see a married sister of his, three and one-half miles from where he resides, and found he had shouldered his gun and walked to her house during the morning. This latter patient is of a marked strumous dinthesis, in addition to being an epileptic from childhood; he is now 25 years of age. He had become very much emaciated on account of want of appetite, and when he did eat would cough so severely as to cause him to vomit up his food immediately afterwards. I have usually procured my supply from Dr. M. M. Griffith, of Irving, Chautauqua Co., N. Y. I would scorn writing an article for a high-toned medical journal that had the color of advertising any special source of supply for any medicinal preparation, but I must say, in justification, that I was forced, in an emergency, to supply myself elsewhere, and the result was by no means satisfactory. Hoping the profession will investigate the effect of crude petroleum causes me to indite this paper. It can be given in pill or capsule. C. S. Strother, M.D.

Orange, Cherokee Co., Ga., June 1, 1881.

Poisoning by Stramonium.

Ed. Med. and Surg. Reporter:—

I was called, on the 3d inst., to see two children of Mr. J. H., aged eighteen months and three years respectively, both of whom, I was informed, had been poisoned by swallowing stramonium seed, which had occurred as follows:—

A little girl, aged six years, was "playing doctor," and the two children mentioned, acting as patients, were given the seed, representing pills. The younger child had evidently been less dosed, as its symptoms were less intensified.

I presume the would-be-doctor had the same difficulty the older members of the profession often realize in administering remedies to an incorrigible child. As the condition of the child aged three years was the more critical, I will only give a history of its case, and the treatment. Its surface was intensely red, skin hot and dry, pupils largely dilated, pulse full and bounding, moderately accelerated, tongue and fauces dry, tetanic contortions, and its sufferings apparently intensely agonizing. It acted as if falling from some lofty point and catching at every conceivable object. It was impossible for me to get its temperature. After being fully assured that the child had been poisoned as stated, I first directed my attention to the stomach, hoping to dislodge some of the undigested seed. I first gave salt, mustard and warm water; failing to accomplish my object, I gave ipecac., with a like result. I then resorted to the old time-honored feather, which brought away a considerable quantity of undigested food and a few stramonium seed. After having emptied the stomach of its contents, and its contortions continuing, I gave chloral hydrate and bromide of potash. In the course of one hour, and after the second dose had been given, the child went into a quiet sleep; six hours afterward it awoke, free from the symptoms of the poison. The following day it appeared weak, though it rapidly recovered. J. M. Pace, M.D.

Dallas, Texas.

Maternal Impression.

Ed. Med. and Surg. Reporter:—

Your editorial on maternal impressions, and last week the article of Dr. Rawlins, brings to my mind a case strongly in point, which I will relate briefly:—

I was called, about three o'clock on the morning of March 27th, 1878, by Mr. H. He said his wife had been delivered of a child about half an hour before, and that the child was not right. On examination, I found the head drawn out in the form of a sheep's head and covered with black wool, which also extended down the neck, across the shoulders and back and down the outside of the arms. The two central incisor teeth on each jaw were large and presented the same appearance that a lamb does when first born. The eyes were large and circular and looked just like a sheep's eyes. A stump of a tail, about four inches long, extended out from the coccyx. Every few moments it would give a low, bleating cry, which sounded just like a young lamb. The body and limbs were those of a well-formed female child. On questioning the mother, she said she had a severe fight with a large, ugly "ram," when at about the fifth month of her pregnancy, and was very much exhausted, when she finally got over a fence, away from the ram; but she said she had never thought of it since, until she heard the child give a cry just like a lamb. The child died with convulsions on the third day.

If this is not strong evidence of "maternal impressions" let us hear of some.

L. L. Doty, M.D.

Mosiertown, Crawford, Co. Pa.

—Prof. Depaul tells a story from his clinical experience, of a poor woman, who, to all appearance, had succumbed to a uterine hemorrhage. Turning to the persons who surrounded him, he said, "This woman is dead." But to his great stupefaction the patient replied, in feeble voice, "*Pas encore!*" So little dead, indeed, was the poor woman, in spite of all appearances, that in three weeks she left the clinic, perfectly well.

News and Miscellany.

Effects of Race in t e Causes of Death.

Dr. E. Snow, in his May Report as City Registrar of Providence, gives a table showing how race affects the causes of death.

The following shows the number of decedents, according to parentage, from several prominent causes:—

	Am.	*For.*		*Am.*	*For.*
Apoplexy	5	5	Whooping Cough	3	1
Brain, diseases of	10	1	Hydrocephalus	5	1
Bronchitis	2	6	Liver, diseases of	0	3
Consumption	12	21	Pneumonia	3	10
Diphtheria	10	1	Scarlatina	3	5
Heart, diseases of	4	10	Tuberculosis	4	2

The population of Providence is, probably, about 45 of American and 55 of foreign parentage, in each 100; but from the figures just given of the number of decedents from different causes, it would be difficult to imagine that any such proportions existed in the living population. It is evident that a very great difference exists between the American and the foreign population, according to parentage, in the proportions of deaths from different causes, and this fact illustrates the importance, in this country, of the classification of vital statistics according to the parentage of the population.

Inquiries about "Mother's Marks."

Dr. F. J. Baker, of Lockport, New York, will be glad to receive information touching on the following queries:—

1st. Have any cases come to your knowledge or observation, of fœtal deformities or "marks" attributable to mental impressions on the mother during pregnancy?

2d. Have you any knowledge of cases tending to establish the doctrine of materno-fœtal symmetry, bearing particularly on ante-natal education?

Division of Labor.

This, says the *Canadian Journal of Medical Science*, is becoming fashionable of late in Toronto as well as other places. In the latest case coming under our notice, a celebrated clairvoyant is looking after the internal economy, putting in some new apparatus (a pair of lungs at present, we believe), while a surgeon is treating hemorrhoids in the same patient. The clairvoyant in giving the surgeon simply the anus to manipulate, is allowing him rather a short hold.

Cremation of an Italian Professor.

Dr. Ferdinand Colletti, Professor of Therapeutics at Padua, who was one of the early champions of cremation, died recently, and was cremated at Milan, with high honors.

Inquiries about Phthisis.

Dr. Edward Playter, Toronto, Canada, has printed a circular containing a series of inquiries in reference to tubercular patients, his object being to arrive at a closer definition of the cause of tubercular phthisis than we now have. Any physician who will aid him in this investigation may receive a copy of the circular by addressing as above, and will confer a favor on Dr. Playter by doing so.

Registration in Pennsylvania.

A convenient form of registration has been adopted by the Prothonotary of Cumberland County. As uniformity is desirable, this form is recommended by Dr. Sibbet to the consideration of the several Prothonotaries, and to the profession. Copies may be obtained by addressing Dr. R. L. Sibbet, Carlisle, Pennsylvania.

Personal.

—Dr. De F. Willard has been appointed surgeon to the Presbyterian Hospital, in place of the late Dr. H. Lenox Hodge.

—Dr. Gregory, of Fredericton, N. B., was thrown from a carriage Tuesday, and died of his injuries last week.

Items.

—It was a doubting patient who said, "Doctor, are these pills square?"

—Over one thousand medical men have already expressed their intention to be present at the International Medical Congress, in London.

—A cow in Rochester, N. Y., is sick with what is believed to be spontaneous cow-pox, and the case is watched with interest by some of the physicians of that city.

—Although Littré was baptized in his last moments, *Le Progrès Médical* states that his disciples have united to form a society to continue "positive religion," whatever that may be.

—The mortality from plague in Mesopotamia continues heavy. Alexandrian authorities deny its presence in Egypt, but can they be believed? Medical men in official positions are often asked to tell lies "in the interest of the business community."

—A French barber, referring to baldness and the credulity of people respecting the efficacy of hair tonic, says: "During the past twenty five years that I have practiced the profession of hair dresser, I have made the trial, upon different bald heads, of more than five hundred different hair tonics, and I am bound to admit that I never saw a single head the hair of which was restored after baldness."

—The Cincinnati *Gazette* takes a gloomy view of the bibibles in that city. It writes: But are liquors poisoned? Of course they are. Four-fifths of all the liquors drank in Cincinnati, including wine, beer and cider, are poisoned. And these poisons are not confined to common drinks, such as whisky and beer; they extend to the aristocratic drinks that are most costly. The French wines are nearly all adulterated and contain poison. They are not real wines, but imitations.

—The officers for the ensuing year in the Iowa

Union Medical Society, are the following:—President, Dr. J. M. Armstrong, Lisbon. First Vice President, Dr. M. Meredith, Vinton. Second Vice President, Dr. Geo. P. Carpenter, Cedar Rapids. Secretary, Dr. Edwin Burd, Lisbon. Treasurer, Dr. H. W. Sigworth, Anamosa. Board of Censors, Drs. Edwin Blakeslee, J. McMorris, and E. M. Smith. Committee on Ethics, Drs. J. W. Lagrange, J. S. Love, and J. M. Ristine.

—The lady physicians are all the time gaining points. The Society of Medical Practitioners, of St. Petersburg, at their meeting of May 2d, decided to admit medical women to the membership of the Society. In London, the number of students in the London School of Medicine for women this past winter reached to the respectable figure of eighty. There are at the present time forty-two female medical students at the Paris faculty. Eighteen of them are English, eleven French, ten Russian, and three are our own beloved countrywomen.

OBITUARY NOTICES.

—Dr. Joseph Barnard Davis, the distinguished craniologist, died May 19th, in his 80th year, in Staffordshire, England. He had collected, probably, the largest private museum of craniology in existence. As far back as 1867, when he wrote his well known *Thesaurus Craniorum*, it numbered over 1700 specimens. It has now been transferred to the College of Surgeons, London.

QUERIES AND REPLIES.

Chronic Colitis.

MR. EDITOR.—In reply to Wm. H. C., Ill., I would ask him to try tannin, in five-grain doses, after each operation on bowels, in syrup; or, try sugar of lead in two-grain doses, in syrup, after each operation, for a few doses, with a sixteenth of a grain of acetate of morphine. But I should rely mainly on the tannin.

Portsmouth, N. H. N. L. FOLSOM, M.D.

MR. EDITOR.—I would recommend that Wm. H. C. administer subnit. bismuth, tannin and Dover's, in capsules, *on an empty* stomach, in his case of chronic colitis, in the hope that he will get the local action of these drugs approximately near the seat of the lesion.

Greeley, Col., June 16th, 1881. G. LAW, M.D.

MR. EDITOR.—In answer to Wm. H. C., of Ill. (case of chronic colitis, in No. 24), would suggest the trial of the following prescriptions:—

℞ Tr. capsicum,
Tr. myrrh.
Tr. catechu,
Tr. opii. aa f.℥ij
Tr. Jamaica ginger, q.s. f.℥iv. M.

SIG.—Teaspoonful in half a glass of sweet milk, three or four times a day.

Or—

℞ Ext. nuc. vomicæ, pulv., gr. xxiv
Ext. opii, pulv., gr. xxiv
Cupri sulph., pulv., gr. xij
Ext. gentian, q.s. M.

Fiat mass et divide in pil No. xlviij

SIG.—One pill morning and evening, till checked, then once daily. J. W. BARD, M.D.

Ohio.

Question in Ethics.

MR. EDITOR.—A. and B. are physicians of the same town. A. is consulted and prescribes for a child, (which he had attended in other sicknesses), arranging with the father to report to him (Dr. A.) on the day following. The child is better the next morning, but toward evening becomes worse, and they send for Dr. A. Dr. A. being away, they call in Dr. B., who prescribes and gives directions for the *further management* of the case. Dr. A. comes home, and being informed of the matter by the father, resumes charge and treats the case according to his own judgment. On the next evening (child much better) Dr. B. calls, in the absence of Dr. A., without having been sent for, inquires about the case, and is angry because *his* directions were not obeyed in full, criticising Dr. A.'s treatment. Did Dr. B. violate the code of Medical Ethics? J. L. M.

Pennsylvania.

Ans.—It is evident that the patient was under the care of Dr. A., and that Dr. B. violated professional propriety in acting as represented.

Muscular Rheumatism.

MR. EDITOR.—Will a reader of the REPORTER please suggest a reliable course of treatment in muscular rheumatism, both acute and chronic. "H."

Iowa.

MARRIAGES.

BAXTER—MURPHY.—In Muscatine, Iowa, by Rev. Father P Laurent, June 1st, 1881. W. H. Baxter, M.D., of Wilton, Iowa, and Annie U. Murphy, of Muscatine, Iowa.

LITTLEFIELD—CRAIG.—On Thursday, May 12th, at St. Michael's Church, Germantown, by Rev. Wm. Ely, assisted by Rev. J. K. Murphy, J. Dana Littlefield, M.D., of Boston, Mass., and Caroline Grey, only daughter of the late Morgan Craig, of New Brighton, Pa.

NEWTON—ECKERT.—On Wednesday, June 1st, at Paterson, N. J., by the Rev. Edwin B. Russell, Dr. William K. Newton, of Paterson, and Miss Harriet Eckert, of Ridgewood, N. J.

RICHARDSON - THOMAS.—On Wednesday evening, May 18th, at the residence of the bride's parents, No. 1 Bedford Ave., Brooklyn, N. Y., by the Rev. A. H Partridge, Rector of Christ Church, George W. Richardson, M.D., of New York city, and Laura Isabelle, daughter of Joseph R. Thomas, Esq.

SMITH—ARCHULETA.—At James Hot Springs, New Mexico, April 25th, 1881, by Rev. J. M. Shields, M.D., Mr. James A. Smith and Miss Cayitana Archuleta.

SMITH—ZOGBAUM.—On Wednesday, June 1st, at the West Presbyterian Church, by the Rev. Dr. Hastings, St. Clair Smith, M.D., and Kate, daughter of Ferdinand Zogbaum, all of New York.

TANTUM—WILLIAMSON.—In Penn's Manor, at the residence of the bride's father, May 4th, 1881, by the Rev. Elijah Lucas, James D. Tantum, M.D., of Trenton, N. J., and Ella, daughter of Mr. Jesse Williamson, of the former place.

THOMAS—CUMMINGS.—On Wednesday evening, June 1st, at the residence of the bride's parents, No. 277 Bellevue St., Newport, Ky., by the Rev. W. M. Pettis, Dr. D. C. Thomas and Miss Nettie Cummings, both of Newport.

TROWBRIDGE—POLHEMUS.—On Wednesday, May 25th, at the Burlington, No. 30 West 33th St., by the Rev. Dr. Wm. F. Morgan, George Trowbridge, M.D., and Theodora, daughter of the late A. D. Polhemus.

VANCE—MEGARGEL.—At Bloomsburg, Pa., May 5th, by Rev. Stewart Mitchell, D.D., William T. Vance, M.D., and Alice Megargel, both of Orangeville, Pa.

DEATHS.

NICOL.—In Zurich, Switzerland, March 28th, 1881, of pneumonia, Rachel J. Nicol, M.D. (Class of 1874, Woman's Medical College of Pennsylvania), aged 32 years.